The Bradshaw Lecture

ON

PROGNOSIS IN RELATION TO DISEASE OF THE NERVOUS SYSTEM.

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MR. PRESIDENT,—Allow me to thank you for the great honour you have conferred upon me by asking me to deliver the Bradshaw Lecture this year, and allow me to express a wish that the value of my lecture were in any degree equal to my appreciation of the honour.

When we first enter upon the practice of medicine we are, perhaps, too apt to separate diseases from a prognostic point of view into the curable and the incurable—that is, to recognise one class of diseases in which complete recovery is the rule and another class in which the tendency is to a fatal issue or to only partial recovery. With increasing experience of the course and terminations of morbid processes we find ourselves less able to draw sharp distinctions between the ultimate results of different diseases. We meet with formidable disease which appears to have been caused by some simple ailment that we had regarded as being completely cured. For example, we attend an adult suffering from influenza. In a fortnight he appears to be quite well, but a year later he consults us for headache, nervousness, incapacity for work, and other symptoms which constitute the condition known as neurasthenia, and he says that he has never been the same man since the attack of influenza. On the other hand, if we study diseases that are regarded as incurable we are surprised to find that every now and then such a disease is apparently completely cured. Thus we occasionally see cases which present the classical symptoms of brain tumour in which, after a time of anxiety, a stationary stage is reached; the prognosis becomes more hopeful, and, as regards the prospect of mere existence, it may be very good. More rarely we see a child recover from symptoms which, rightly or wrongly, we regarded as indications of tuberculous meningitis. Such experiences tend to make us more cautious regarding the prognosis of ailments which usually recover, more open-minded in respect to those which, as a rule, pursue a downward path. We begin to believe (1) that illness, however slight, may leave behind it some weak spot which, after months or even years, may be attacked by a noxious agent and become the starting-point of chronic progressive disease; and (2) that severe organic disease is not always fatal; that sometimes the morbid process is arrested, and, in exceptional cases, even completely cured. A full consideration of the subject, indeed, shows us that an accurate prognosis of disease is well-nigh impossible, and that even an approximate forecast presents great difficulties which are perhaps more prominent in relation to diseases of the nervous system than to diseases affecting other parts of the body.

The problem before us may be stated as follows. A part of the nervous system—say, a nerve-cell—is attacked by a poison. The effect will depend partly upon the nature, the virulence, and the duration of the action of the poison, and partly upon the resistance offered by the cell. Both factors present infinite variations. If we think only of the resistance of the cell which depends on its condition at the time of attack we see that this condition is the result of all the influences that have been brought to bear on the cell during its birth, development, and existence—that is, of its inherited qualities and its environment past and present. Moreover, its resistance may be helped by agencies outside it; for example, the development of antitoxins. It may be lowered, owing to the cell being cut off, in consequence of its altered condition, from the full benefit of the sensory and other impulses which it normally receives from adjacent neurons. The resistance, too, may be modified by influences which the lesion has itself induced in other parts of the nervous system—as, for example, the inhibition of the functions of other centres. Furthermore, the direct effect of the changed condition of the cell on its surroundings, as on its axone or on the arborisations of neighbouring neurons, has to be taken into account before we can attempt to grasp the pathology of the situation. The results of such cell disturbance are manifested to our senses by what we call symptoms, and very often they are the only elements of the disease with which we are acquainted. Thus the condition known as hysteria is a mere collection of symptoms which may give us information as to the site, but none as to the nature, of the lesion. In other cases we know something of the attacking agent—as, for example, syphilis—and of the changes it produces in nerve-tissue, and then we can form a more complete diagnosis. But even in these cases it is usually far easier to make a regional than a pathological diagnosis, and this will continue to be the case until our knowledge of the causes of the disease has attained a firmer basis. It is, then, our ignorance of etiology and of general pathology in its broadest meaning which makes our diagnosis and our prognosis so often imperfect or erroneous. In the meantime it may be profitable to review our knowledge of some of the elements which, as I have indicated, are essential factors in the framing of a prognosis.

PROGNOSIS IN RELATION TO THE ATTACKING AGENT.

Our knowledge of the various agents that may set up disease is too limited to help us much in making a forecast of particular ailments. A clot in a cerebral vessel will rob a portion of brain of its blood-supply and thus lead to impairment or loss of functions, but from the symptoms presented to us we cannot determine whether the obstruction will be temporary or permanent. A blow on the head, insufficient in force to cause fracture of the skull or other gross lesion, may produce symptoms of concussion from which the patient slowly recovers, but we are unable to say that a cure is established, for a train of symptoms may begin to develop some time after the accident, symptoms which in some cases indicate a more or less permanent damage to cortical cells; while in other cases they point to the presence of a brain tumour. There is good evidence that irritation of sensory nerve-fibres may lead to muscular atrophy. Thus articular lesions are often quickly followed by wasting of the muscles that move the affected joint, and especially of its extensor muscles. In some cases the atrophy is persistent, and it may spread to other muscles of the limb. I believe that sometimes progressive muscular atrophy is initiated in a similar manner. For example, a policeman in a severe struggle with a maniacal patient strained some of the muscles of the right arm. Two or three weeks later he noticed that the limb was getting thin and weak, and in a few months the case was clearly one of chronic anterior poliomyelitis.

An absence of the secretion of the thyroid gland appears to be the cause of the impaired brain functions met with in cretinism and in myxœdema, while absence of the parathyroid secretion has probably something to do with the origin of exophthalmic goitre. Still we know but little regarding the resulting chemical changes which lead up to these diseases, nor can we say how far symptoms in other nervous maladies may depend on modifications in the quantity or the quality of gland secretions which enter the circulation. As to poisons, which may be regarded as the commonest causes of nervous disease, we are daily acquiring more knowledge. We know a good deal regarding the course of diseases produced by alcohol, lead, arsenic, and other poisons which are introduced into the body, and something of the effects caused by poisons which are the products of bacteria and which are produced within the body, such as the toxins of syphilis and tubercle. By analogy rather than by actual demonstration the nervous sequelæ of specific infectious diseases are attributed to the effects of the toxins of special micro-organisms. In the case of disseminated sclerosis, infantile paralysis, myelitis, and many other nervous affections, we assume that they, too, may be set up by poisons some of which might be derived from the products of over-fatigue, or of abnormal digestion in the alimentary canal, or from the perverted function of some other organ or tissue.

Two striking features may be noted regarding the effects of poisons—namely, their selective action and the immunity which is the direct result of their action. Immunity, however, is not known to occur in the case of poisons which are not of bacterial origin, with the exception of opium and tobacco. In the case of toxins both selective action and immunity play an important part in the prognosis of disease

and may now be briefly illustrated by reference to the nervous diseases produced by syphilis. The poison of syphilis shows a preference for the vascular structures at the base of the brain, for branches of the cerebral and spinal vessels, for the afférent conducting paths of the spinal cord, and for the cortical cells in the anterior part of the brain. Now, it is often stated that organic affections of the nervous system run a more favourable course when due to syphilis than when they are started by other agencies. The statement, if true, must be taken with considerable qualifications. When brain tissue is destroyed by the blocking of an artery it matters not whether the clot be of syphilitic or other origin; the result is permanent impairment of function. If brain tissue is damaged but not destroyed, then as much recovery may take place when the arterial obstruction is due to embolism from heart disease as when it is due to thrombosis from syphilitic endarteritis. But if there is only a narrowing of vessels there is reason to believe that the thickening is more amenable to treatment if syphilitic than if due to other forms of arterial sclerosis.

Exudation from syphilitic vessels may be removed by treatment, but it is impossible to say to what extent this will occur in any individual case. Moreover, there can be no doubt that absorption of exudations occurs in other specific infections, as, for example, in connexion with the inflammatory products which sometimes occur in the brain as a result of influenza, or in the cord in cases of myelitis of unknown toxic origin, for it is certain that occasionally well-marked symptoms of myelitis not due to syphilis entirely pass away. Two marked instances of such recovery have recently been under my care. Even if it be admitted that syphilitic exudations are more readily removed than are those which are not syphilitic, the admission is not opposed to a further statement—namely, that the prognosis of syphilis in relation to nervous diseases may, in respect to the final outcome, be worse than that of any other poison. One thing at least is certain—the germs of syphilis once introduced into the body are difficult to destroy. A syphilitic patient recovering from an attack of right hemiplegia may be seized with left hemiplegia. A syphilitic myelitis may develop some years after symptoms of cerebral syphilis, or a patient suffering from syphilitic meningo-myelitis may make a partial or complete recovery, and be adequately treated for a long time afterwards, and yet subsequently may have another serious breakdown in some part of his nervous system. In this respect syphilis presents a contrast to the acute specific fevers. For example, if the poison of measles sets up a disseminated myelitis and the patient recovers we are pretty confident that no subsequent nervous affection will develop as a result of the original infection. In syphilis, on the contrary, there appears to be an infinite capacity for future developments of its toxins. Some authorities have stated that if a person who has contracted syphilis is placed under proper treatment for a couple of years he may in the majority of cases be regarded as completely cured. My experience is opposed to such an opinion. It may be true that some persons are cured, but we cannot anticipate such a result. It does not follow because a person presents no symptoms for many years that he is cured. The germs of syphilis may lie hidden in his body, giving not the slightest indication of their deadly presence; and then after a period of 10 or even 20 years may suddenly revive, shatter his nervous system, and put an end to his life, after a few years of insanity or of a painful miserable existence. If this be the outlook for the future condition of the nervous system in the subjects of acquired syphilis, what is to be said of the prognosis when the poison is inherited? Here the outlook is equally uncertain and, if possible, even more gloomy, for the type of nervous syphilis in the child is a diffuse sclerosis of the cerebral cortex which arrests its growth, paralyses its highest functions, and slowly but surely leads to chronic progressive dementia.

Now, if we have to speak so cautiously about the course of diseases produced by a poison, the effects of which have been so carefully studied as those of syphilis, how much more caution is necessary in speaking of the action of poisons whose effects are so little known as those which we assume to be the exciting agents of disseminated sclerosis, of Landry's paralysis, and of many other forms of nervous disease. At the outset I alluded to influences, inhibitory or otherwise, which tend to modify the resistance of the part first attacked by an injurious agent. A consideration of such influences is of great interest, but I must pass them by in order to have time to make some remarks on the relation of prognosis to the changes which are the result of these counteracting forces and to their outward expression by means of symptoms.

PROGNOSIS IN RELATION TO MORBID ANATOMY.

To what extent is the course of a nervous disease modified by the size, situation, and nature of the lesion present?

Size.—The mere size of a lesion appears to have but little influence on the progress of disease. A slowly-growing tumour in certain regions of the brain may reach a large size without giving rise to much disturbance of function; moreover, its development may be arrested, all the symptoms produced by it may pass away, and occasionally a partial recovery is established. On the other hand, a person who presents the group of symptoms which constitute Landry's paralysis, or the condition known as myasthenia gravis, may die within a few weeks or months, and no changes be found in the nervous system after the most careful microscopical examination. The terms "functional" and "organic" have been somewhat unfortunately used to separate diseases according to the presence or absence of visible changes. Now, visibility is a relative term; it depends on our eyesight and the powers of our microscopes, and, as regards nervous structures, to some extent on staining reagents, and, let it not be forgotten, on the thoroughness of our search. Hence with improved methods of investigating nerve tissue we may expect that the group of functional disorders will get smaller and smaller. If on grounds of convenience these terms be retained two points should be clearly recognised—namely: (1) the term "functional" ought to mean, not the absence of morbid changes, but only the absence of detectable changes; and (2) it ought not to be taken for granted that a disorder which has no known structural changes will run a more favourable course than one in which such changes are apparent. The lesions underlying paralysis agitans, exophthalmic goitre, epilepsy, and spasmodic torticollis are unknown to us, yet we cannot regard these diseases as curable. Death may result from a profound chemical disturbance of the atoms and molecules of nerve tissue which leaves no visible trace, and between such minute changes and a large lesion there must be every gradation in size.

Situation.—When the bulbar neurons which preside over the functions of respiration and deglutition are involved life is seriously endangered. When other cells and fibres are implicated the question of loss of function has to be considered rather than that of any immediate danger to life. It may be accepted as a general law that, other things being equal, lesions of the peripheral nerves are more quickly and completely recovered from than lesions of the central nervous system, and that lesions of the brain, at least as regards the degree to which function is impaired, are less serious than those of the cord. Thus the brain may be the seat of relatively large lesions without any definite symptoms being produced, while, owing to the small space transversely occupied by the centres and conducting paths in the cord, a comparatively slight lesion may injure it irretrievably. The situation of the lesion influences the degree to which impaired or lost function may be compensated for by the action of healthy parts of the nervous system, and, therefore, it has a definite relation to prognosis. For example, in hemiplegia the motor power of the leg is more readily restored than that of the arm, because the motor neurons of the legs are more intimately connected by association fibres in the cerebral and spinal commissural tracts than are those of the arm. In infantile paralysis the functions of the cells in the anterior horns, which are destroyed at a certain level, may be taken up by healthy cells at a higher or lower level. The principle of compensation also may be seen in cases of muscular atrophy, where a muscle may hypertrophy in fulfilling the function of its atrophic neighbour. It explains also to some extent the more favourable prognosis in affections of the sensory, as compared with those of the motor, mechanism, for, as is well known, the conduction of motor impulses is much more restricted to definite tracts than is that of sensory impulses. As regards the central nervous system then, restoration of function may be said to be due either to the recovery of nerve tissue which is only partially damaged or to the taking up by adjacent or distant structures of the functions that are lost, for there is no satisfactory evidence, and I have Dr. F. W. Mott's authority in support of the statement, that nerve-cells or fibres in the brain or cord which are completely destroyed can ever be replaced by new cells or fibres. Dr. Mott informs me that

he has frequently in degenerating tissues seen attempts at mitosis of the nucleus of a cell, but he has never seen this proceed to the development of a new cell.

With regard to the pathological significance of lesions in different parts of a nerve-cell the observations of Marinesco, Lugaro, and other investigators are of great interest. Lugaro[1] states that "lesions of the chromatic part are the first to appear in all cases in which the harmful action does not act suddenly and with such energy as to paralyse function; that they are in every case reparable, even when very grave, provided that the other parts of the cell have not suffered serious damage. It is very doubtful, however, if lesions of the achromatic part can be repaired, more especially since they very often appear contemporaneously with lesions of the nucleus, the integrity of which is indispensable for the conservation of the cell. He points out that there is no exact and constant relation between lesions of the chromatic part and functional disturbance, that the functional activity of the cell can continue even when the chromatic part is injured, and that this part does not possess structural arrangements necessary for the fulfilment of its function, which depends therefore upon chemical composition and not upon morphological disposition. Within certain limits of structural alteration function can remain intact, and will not exhibit disturbance with certainty except in cases of grave alteration, when the nutritive alteration is also grave. On the other hand, function will be entirely suppressed when the structural dispositions of the achromatic part, which seem more strictly related to the nervous conduction, are altered, or when they are suddenly affected by energetic chemical action."

The nature of the lesion.—If we could see the changes which occur at the onset of a morbid process, are they different in different diseases? Take a well-marked case of neurasthenia where a man in the prime of life begins to lose his mental capacity; his memory fails, he loses interest in everything; he cannot bring himself to do simple things, such as the writing of a letter. We assume that his cortical cells are deranged. In what way are they altered? Is the kind of change different to that which constitutes the initial stage, say, of general paralysis? In both diseases we have reason to believe that the cause is a toxin; in general paralysis this is usually of syphilitic origin; in neurasthenia its origin is not known. If the very earliest changes in the cortical cells of the two diseases were visible, would they be like or unlike? If like, we must assume that different poisons may at first produce the same results; and then, if the changes in the one case are progressive and lead to degeneration of the cells, which is represented by the symptoms of general paralysis, while in the case of neurasthenia they are more or less stationary, we should be at a loss for an explanation. Probably, if we found similar identity in the initial morbid changes of other diseases we should be disposed to believe that variations in progress might be due to variations in the dose of poisons; that a case of neurasthenia, for example, which had remained stationary for some time might, if the dose of its poison were increased, develop into one of general paralysis; in other words, that one disease might pass into another. This is a fascinating speculation, and is to some extent supported by the transitional clinical forms that are met with between well-marked types of different diseases. But, for my own part, I prefer to believe that each poison has its own point of attack and that the earliest change of each disease has its own peculiarities, minute enough, no doubt, and still invisible to our present methods, but which, if visible and thoroughly recognised, would enable us to diagnose the condition and to foretell its probable developments. This view receives support from the investigations of Lugaro[2] whom I have already quoted. He says: "The study of subacute intoxication has shown us that while the primary lesions of the nerve-cells have common features there are not wanting in them particular characters by which we can more or less completely distinguish one intoxication from another. The alterations that result from chronic intoxications present, according to Nissl, a remarkable uniformity both as a whole and individually. This fact, I believe, may be explained by the circumstance that the toxic action is complicated by autotoxic actions resulting from secondary disturbances of metabolism and from alterations of the other viscera that reciprocally exercise an influence on the brain. These secondary disturbances, relatively uniform, must tend to mask the primary action, cancelling the original diversity of the picture produced by the various agents. The action of general and local infections of the nervous system has a very great analogy to that of the intoxications. This we can easily understand if we consider the greater importance of the indirect and general action exercised by the micro-organisms through their toxins in comparison with their direct and local action."

Are there any changes which immediately precede the minute ones in nerve cells which I have assumed to constitute the histological basis of the earliest symptoms in nervous diseases? The toxic material passes in the blood along the walls of a vessel; does it attack the nerve cell only or does it first attack the delicate and active endothelial cells lining the vessel? It is possible that some toxins may first attack the nerve cell and have their action limited to it, at least for a time, but histological evidence speaks strongly in favour of a previous, or at any rate of an associated, vascular lesion. Undoubtedly the prevalence of vascular lesions is the most striking thing in the morbid anatomy of cord and brain diseases. In all forms of myelitis, in disseminated sclerosis, and in poliomyelitis the spots of the disease are closely related to the distribution of blood-vessels, which may contain thrombi, have their coats thickened and their perivascular lymph sheaths crowded with round cells. These changes strongly suggest the action of some irritant on the endothelial lining of the vessel, which leads to an increased flow of lymph and leucocytes into the perivascular tissues and thus initiates the earliest nerve lesions. Apart, too, from visible vascular lesions, an irritant may set up spasm of muscle in the wall of an artery, for it seems probable that vaso-motor spasms may play an important part in the symptomatology, not only of organic disease, but also of hysteria, neurasthenia, headache, and many other functional affections.

PROGNOSIS IN RELATION TO SYMPTOMS.

We have seen that the influences at work in the production of disease and its effects are manifold, for in addition to the morbid changes which occur in the part attacked, which present infinite variations owing to variations in the nature and strength of the attack and of the resistance offered to it, we have to consider the changes which may be set up at a distance from the lesion, changes which, whether temporary or permanent, may cause certain inhibitory or accelerating influences to be exerted on the functions of various parts of the nervous system. If, then, the influences at work and their effects are so complicated, how shall we adequately interpret the results? The only manifestations to us are symptoms, and these depend, not on all, but only on some of the results of the disease. Our difficulties are still further increased by the fact that symptoms vary in different persons quite apart from the severity, distribution, and nature of the lesion. For example, with the same amount of irritation of sensory fibres the perception of pain in one person is extreme, in another very slight. Thus, one has watched the course of painless intrathoracic aneurysms and of pyloric cancers, and has felt convinced that the mere locality of the lesion was not sufficient in itself to account for the absence of pain. Again, one has seen cases of cerebral tumour in which headache was but slight and certainly far from constant. Without stopping to find reasons for such idiosyncrasy one may bear it in mind as a partial explanation of variations in other symptoms, objective as well as subjective; thus, I do not think that morbid anatomy always explains why paralysis is profound in one person, moderate or only slight in degree in another, or why the degree of muscular spasm varies so much in affections of the upper neuron.

As an example of want of correlation between symptoms and morbid anatomy the following case of glioma of the cord is worthy of record.

CASE 1.—A man, aged 24 years, was admitted under my care at the Manchester Royal Infirmary last June, complaining of weakness of the right arm. He stated that he first noticed the weakness on waking one morning, about three months before admission, and that during the last four weeks his neck had felt stiff and sore. On examination, all the muscles of the right arm were weak and wasted; he could feebly flex the wrist and fingers and feebly supinate and pronate the hand, but he was unable to extend the wrist

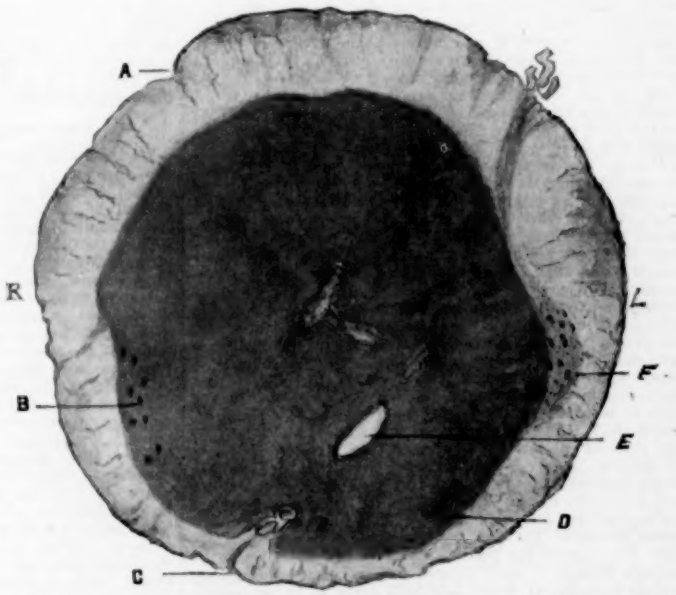
[1] Rivista di Patalogia Nervosa e Mentale, 1899, quoted by Ford Robertson in his Text-book of Pathology in Relation to Mental Disease.
[2] Loc. cit.

or to perform any movements at the elbow or shoulder. The power of the left arm was good, with the exception of flexion of the hand and fingers, which was feeble. As regards cutaneous sensibility he could feel the slightest touch, and everywhere could distinguish between the head and the point of a pin. Sometimes the pain produced by a pin-prick seemed to last longer than normal, and sometimes he multiplied the number of points of contact; occasionally he appeared unable to distinguish between a hot and a cold test-tube when applied to the right arm. The head was inclined towards the left shoulder; he was unable to move it back beyond the vertical position. He could turn his chin better towards the left than the right side; this was due to pain in the neck rather than to muscular weakness. The fifth and sixth cervical spines were tender to pressure, but only to a slight degree; and the skin of the right side of the neck was a little more tender to pressure than that of the left side. There was no hyperæsthesia elsewhere. Both knee-jerks were present; the right was feebler than normal. On June 22nd the patient was shown at a meeting of the Neurological Society held in Manchester, and various opinions were expressed as to the nature of the lesion. At this time sensation was practically normal, and the neck tenderness was very slight; there was indeed no evidence that any of the cervical roots were involved. Most of those who examined the case regarded it as one of anterior poliomyelitis; one or two members of the society suggested the possibility of a new growth involving the cord. At the end of June weakness of the left arm became more marked, and the first dorsal inter-

FIG. 1.

Shows enlargement of the cervical cord.

FIG. 2.



A, Posterior fissure. B, Ganglion cells of anterior cornu. C, Anterior fissure. D, New growth. E, Central canal. F, Anterior cornu

osseous muscle was distinctly wasted. A blister formed on the palmar surface of the third finger, and a little later another developed on the dorsal aspect of the middle finger. After two or three consultations with Mr. Thorburn it was decided that a growth could not be excluded, and on July 9th Mr. Thorburn performed laminectomy. No growth was found outside the dura, nor was there any indication of bone disease. On opening the dura a great deal of spinal fluid escaped, but no lesion was discovered. After the operation the patient was quite comfortable and his breathing natural. He was unable to pass urine, which had to be withdrawn by the catheter. The evening temperature was 100° F. His condition remained favourable till the following evening, when his temperature rose to 103° and his breathing became hurried and distressed. The left arm was now much weaker than before the operation. The retention of urine continued. On July 11th the patient was decidedly worse and almost completely paralysed. His face was flushed and his breathing was entirely, or almost entirely, diaphragmatic. Both arms were completely paralysed; the legs could be slightly moved by a voluntary effort, but such movement amounted to little more than a twitch. A most careful examination failed to indicate any trace of anæsthesia or of hyperæsthesia. The knee-jerks were absent. The breathing became more and more embarrassed and he died in the afternoon.

For the following pathological report I am indebted to Dr. F. C. Moore: "Body that of a tall, well-nourished, muscular man. Marked atrophy of the muscles of the right arm. The intra-thoracic and abdominal organs were apparently normal. The brain also presented a healthy appearance. The cervical portion of the spinal cord was greatly enlarged in its whole extent (Fig. 1) On section this was found to be due to the presence of an elongated ovoid mass of new growth which extended from the second segment to the commencement of the dorsal cord. At the upper and lower ends the mass of new growth gradually became thinner and terminated in a bent cone. To the naked eye the cut surface of the tumour presented a uniform greyish, semi-translucent appearance; peripherally it was invested by a thin layer of white matter. A section through the middle region of the tumour showed under the microscope that the new-formed tissue occupied the greater portion of the transverse area; it was completele invested by a narrow zone, varying in thickness, of nervy tissue. The growth approached nearer to the anterior than to the posterior surface of the cord, and nearer to the right than to the left side. In structure it consisted of a matrix of interlacing fine fibres containing a considerable number of cells, many of which were large and multinuclear; others were small and obviously belonged to the neuroglia. There were some scattered capillary vessels. The new growth was apparently a neuroglioma and had probably originated in the tissue round the central canal. The periphery of the tumour was well defined and sharply delimited from the investing nerve tissues. On the left side the cornua—anterior and posterior—of grey matter were drawn out antero-posteriorly and compressed laterally (Fig. 2). In structure they appeared quite normal, the large ganglion cells being unchanged. The left lateral column of white matter was compressed, but its area was probably not

diminished in size and its component fibres were unaltered. The left posterior column, also altered in shape, was not much diminished in area and was not degenerated. The anterior column was greatly attenuated and was represented by a narrow zone of fibres compressed between the bulging tumour and the pia arachnoid. On the right side of the tumour the grey matter was represented by a few scattered ganglion cells which were situated in the outer zone of the tumour. These few cells were normal in appearance. The lateral and posterior columns, though deformed, were apparently but little altered; probably, however, there was some destruction of their fibres owing to the encroachment of the tumour."

In the next place we must remember what Dr. Hughlings Jackson has so justly emphasised—namely, that symptoms are due as much to normal physiological functional activity imperfectly applied as to the actual loss of function occasioned by the lesion; in other words, that symptoms result, not only from the changes at the seat of the lesion, but also from the normal or perverted action of healthy neurons, as an indirect effect of the lesion. Thus the foot deformities met with in infantile paralysis are partly due to the unopposed action of healthy muscles, while the exaggerated movements of a tabetic patient depend to some extent on lowered tonus of the muscles through a cutting-off of sensory impulses from the motor neurons. An analogous phenomenon is the muscular atrophy which follows articular inflammation or that which occasionally attacks a hemiplegic limb. These effects probably result from inhibition of the functions of nerve cells. As another instance of inhibition may be mentioned cases of granular kidney unattended by dropsy in which when an attack of hemiplegia occurs the paralysed leg becomes œdematous. Furthermore, we may observe that symptoms represent both active and passive or arrested phases of disease. For example, we see two cases of what are called birth palsies. The patients have reached the same age and both exhibit spastic limbs and a certain degree of dementia. In one case the condition has been stationary for many years; in the other convulsive attacks have occurred every week or every month since infancy, and the mental functions have gradually deteriorated. In both cases there is permanent damage to cortical cells; in the first case this is all, and the physical health and the duration of life are not seriously imperilled; certain functions are lost by the cutting off of a part of the brain, as the functions of a limb are lost by its amputation. But in the second case living cortical cells are disordered and the manifestations of the disorder indicate the probability of a downward course. It is, then, the symptoms which testify to active phases of disease which, for purposes of prognosis, require to be carefully studied. They have a natural history of their own which calls for independent investigation and which is not as yet adequately explained by morbid anatomy. Very often, indeed, a group of symptoms is the only part of the disease known to us. To this we give a name and are said to have made a diagnosis. Thus to one group of symptoms we give the name of tetany, to another paralysis agitans, and to a third epilepsy. In epilepsy we assume that the cells of the cerebral cortex are at fault, but in tetany and paralysis agitans we know neither the site nor the nature of the lesion. In such cases as these accuracy of prognosis will vary with accuracy of observation in regard to symptoms. We require to have a thorough acquaintance first with types and, secondly, with aberrant forms. In short, we ought to know the natural history of the disease as revealed to us by its symptomatology. In these days, when the chemistry of nerve tissue and the pathology of the neuron are so keenly investigated, we may ask, Is the same ardour evinced by clinicians in the study of symptoms? Do we accurately note day by day the variations in the symptoms of cases, say, of myelitis or of locomotor ataxy? When we have done so we have been astonished to find how frequently slight variations may be detected even when the case is to all appearances a chronic one. We talk of the influence of the mind on the body and of the body on the mind as if their mutual relationships were well understood, but do we understand the meaning of the trophic lesions so often met with in the insane or the temporary improvements which sometimes occur in the subjects of organic disease who visit such places as Lourdes and Holywell? In one case of transverse myelitis known to me a man who was unable to walk bathed at Holywell. After the dip he was able to walk and the next day he walked without crutches. The improvement lasted for 10 days and then the paralysis returned, when he came under the care of Dr. J. Dreschfeld at the Manchester Royal Infirmary. Such improvement is not more wonderful than the temporary improvement in insanity which follows the application of a blister to the neck. On the other hand, can we distinguish between the mental phenomena of visceral disease? For example, can we speak accurately regarding the various states of mental depression seen in stomach affections or differentiate the physical symptoms which occur in the later phases of lung and heart diseases? The more closely we study symptomatology the more we are struck by its complexity and by the necessity for greater care in making our observations and in forming our judgments. As already indicated, diseases of the nervous system may be divided into two groups, according to the presence or absence of visible morbid changes. A disease belonging to the group which is represented to us by symptoms only may have its course foretold as well as one of which the morbid anatomy is well known. A correct prognosis of any particular case of paralysis agitans is neither more difficult nor more easy to make than one of disseminated sclerosis. Prognosis depends less on our knowledge of pathology than on the accuracy of our experience with regard to symptomatology. But sometimes we observe a group of symptoms or a single symptom which, although it may give us a clue as to the part of the nervous system affected, does not enable us to make a diagnosis in any acceptation of the word.

Of isolated symptoms numbness is one of the most common. The subjective sensation may or may not be associated with slight anæsthesia. What is its significance? A married lady consulted me four years ago for numbness of the left arm and hand. On examination, I found slight tenderness over the fifth cervical spine and slight relative anæsthesia down the outer side of the arm. There was no hyperæsthesia and there were no other symptoms whatever. She was not hysterical and there was no evidence of gout, dyspepsia, or any other possible cause. She came again to me the other day; the symptoms were unaltered and she said that, in spite of massage and other treatment, the numbness had been present every day during the four years; in other respects she was quite well. I have seen several cases of numbness and slight anæsthesia, often of root distribution, sometimes in connexion with dyspepsia—as in one case where the distribution was along the inner aspects of both arms, in which the symptoms passed away after a few weeks. In the case just related there is no reason to suspect serious disease, but we cannot exclude it, we cannot deny the possibility that the agent at work is a pernicious one, which in another person might have led to a disseminated myelitis or other serious disease, instead of its action being checked as in the above case. The persistence of the numbness, especially as it is a sensory symptom, is remarkable, but perhaps not more so than the persistence of some cases of neurasthenia and of other so-called functional affections.

In contrast to the above case the following is of much interest.

CASE 2.—In December, 1893, a young woman consulted me for numbness of the feet and the left side of the face. Her manner was somewhat hysterical and I was unable to find any objective signs of disease. The numbness passed off in two or three weeks. Eighteen months later she consulted me again; she complained of much weakness and looked ill and thin, but the only definite evidence of disease was a distinct exaggeration of the wrist-jerks and knee-jerks. This symptom made me suspect the onset of disseminated sclerosis, and the other well-marked symptoms of this malady gradually developed, and she died three years later. In this case is the numbness to be regarded as an early symptom of the disease which ultimately declared itself in an unmistakeable manner? Was it the result of exudations in the sensory path set up by the toxin of sclerosis or was it the result of some other cause? I am inclined to take the former view, although, speaking generally, I do not think that numbness *per se* is a symptom which is commonly of much significance, for nerve-tissue is often so unstable that a very slight alteration in the quantity or the quality of its blood-supply may lead to interference with sensory conduction. At the same time, numbness does indicate a disorder of the sensory path and therefore its presence suggests the necessity of making repeated careful examinations of the patient who suffers from it.

The first case of persistent numbness shows that a definite lesion of the fifth cervical root had existed for four years. Obviously the lesion was a very slight one; it might be the result of the constant action of some poison which showed a preference for that particular region, for of the curious ways in which poisons locate themselves there appears to be no end; while owing to our imperfect methods of producing elimination the local toxic effects may persist indefinitely. Indeed, it seems reasonable to suppose that almost any variety of cell or fibre may be selected by a poison as its seat of attack. Thus the poison of tetanus selects the motor nucleus of the fifth cranial nerve, nicotine picks out the optic nerves, lead some of the branches of the musculo-spinal nerves, while the toxin of influenza may attack almost any part of the nervous system. Reference to our knowledge of influenza would alone justify the assumption which I have made regarding the unlimited modes of selection exhibited by poisons in different cases. Paralysis of some of the eye muscles may be mentioned as another isolated symptom that is often difficult to understand. Some cases are met with apart from syphilis or influenza or other ascertainable cause.

CASE 3.—Last February, a man, aged 37 years, consulted me for double vision and general debility. He said that the symptom, "seeing double," was first noticed on getting up one morning, about a week previously; it was preceded by numbness of the fingers for two or three days. I found complete paralysis of the right external rectus, partial paralysis of the left internal rectus, and slight impairment of the movements of the right facial muscles; no other symptoms were present. The man was a clerk and had felt over-tired for some time. No other morbid antecedent than overwork could be discovered. I saw him again in March and in April, and on each occasion the symptoms were less marked. In May—that is, three months from the onset of his disability—no paralysis could be detected. The treatment consisted in the administration of strychnine and potassium iodide and in rest from work.

The significance of a numbness or a limited paralysis is hard to determine and a cautious prognosis must of necessity be given. Even if we knew the exact nature of the toxin we could not foretell the issue with certainty. Probably in a large number of what are called functional paralyses the minute lesions are quite different from those which constitute the initial stage of a serious disease such as disseminated sclerosis; but we must not regard complete recovery as a differential test; surely it is reasonable to believe that the minute initial changes of a serious disease may be removed and that no future developments will take place. I think that evidence in support of such a belief is afforded as we shall presently mention by a study of the course of serious organic disease. I would contend that the constant use of the term "functional" has hindered the advance of knowledge. Its implication that the changes at present invisible to us are of different nature to those at the onset of serious disease has alone sufficed to limit our view and to prevent our thoughts taking the direction just indicated. Similar remarks might be made regarding the use of the word "hysteria"; a discussion on this subject, however, is somewhat outside my present topic. It must suffice to remind you of the investigations of Buzzard, Bastian, and others, which have done so much to narrow the boundaries of hysteria, and to state my belief that increasing knowledge of pathology will tend to reduce its limits still further. Prolonged vascular spasm or some other lesion must underlie a profound anæsthesia or a contraction of the visual fields. What is meant by calling these phenomena hysterical? In some cases they persist for years, even throughout life, and when they disappear have we adequate knowledge of the subsequent nervous history of the patient? With regard to motor phenomena, such an authority as Charcot has stated that persistent hysterical contractures, after lasting for many years, may be attended with structural changes in the spinal cord; in one case he found a lateral sclerosis, which apparently he regards as a direct outcome of changes started by the hysterical contracture. I find it much easier to believe that from the very first there were minute definite changes to which any hysterical or psychical manifestations were secondary. Commonly enough, such manifestations are met with in association with and frequently overshadowing symptoms indicating organic disease. They are often misleading and tend to make us overlook the significance of a definite objective sign such as paralysis of a group of muscles. In my experience it is rare to meet with psychical paralysis, and when it occurs it is weakness of a complicated movement rather than of individual muscles. Thus the power to stand or walk may be lost when the movements of the legs in bed are normally performed. We are told that such a patient is not shamming but is suffering from a genuine disease, hysteria; it is always difficult, however, to exclude the absence of real effort on the part of the patient.

I will now briefly relate the clinical histories of three remarkable cases of recovery from symptoms which indicated serious disease. In the first case hysterical manifestations were present, in the other cases they were absent.

CASE 4.—The patient, a girl, aged 22 years, was under my care at the Manchester Royal Infirmary from October, 1893, to May, 1894. There was a history of headache, of impaired vision, and of occasional partial losses of consciousness. On admission she was dull, apathetic, and hysterical. There was partial paralysis of the right arm and leg, and at times of the right side of the face. Optic neuritis was well marked, she suffered from constant headache, and pain was caused by pressing on the occiput and neck. At first cutaneous sensibility was normal, but at a later period there was partial anæsthesia down the left side; then paralysis of the right external rectus was noticed. Subsequently the hemianæsthesia disappeared and the left limbs became weak, but they were not so paralysed as the right limbs, which at one time seemed to be deprived of all power of voluntary movement. Optic atrophy succeeded the neuritis, and the girl became absolutely blind with the left eye and partially blind with the right eye. During this time the right knee-jerk was exaggerated and the left one was very feeble; there was no ankle clonus. In December—that is, three months after admission—double ptosis developed. In January the ptosis had disappeared as well as the paralysis of the right external rectus. In February she passed every night in a semi-conscious, delirious state. In March she was able to walk with assistance in a feeble manner. On leaving the hospital in May she went to stay with friends in London. Towards the end of 1894 Dr. C. E. Beevor wrote to me saying that she was an inmate of the National Hospital for the Paralysed and Epileptic in Queen-square. In reply to his inquiries I gave him the history of the case and said that if it had not been for the optic neuritis and the affection of the right sixth nerve I should have been inclined to regard the case as a so-called functional one. A few months later he wrote again, saying that her symptoms had become worse; vomiting and headache were severe, there was marked staggering in walking, double ptosis was present, and there was anæsthesia down the right side. Dr. Beevor thought that there was a tumour in the neighbourhood of the left occipital lobe and after a consultation with Mr. C. A. Ballance it was decided to trephine. Mr. Ballance operated and found nothing abnormal. The patient made a good recovery from the operation; the headache and vomiting ceased; the ptosis, however, and a loss of conjugate movement of both eyes to the left persisted, as also did the right hemianæsthesia. A few weeks later she became maniacal. But what was most interesting, wrote Dr. Beevor, her ptosis, conjugate paralysis, and hemianæsthesia all disappeared and her sight returned, so that she could read small print. "I am now inclined to agree with you that, except for the optic neuritis followed by atrophy, the case looks very like a functional one." The girl was sent to the Bethlem Hospital. Some 18 months later I was surprised to receive a well-written letter from her in which she stated that she was quite well with one exception—namely, that her eyes became painful after reading a few words.

Time will not permit me to comment on this remarkable case, but I would repeat that definite objective signs of brain disease were observed both in Manchester and in London, that they entirely passed away, and that the patient regained her health and was able to resume her occupation.

CASE 5.—This case, which I saw with Dr. J. Robinson of Dunscar in February, 1897, was one of spastic paralysis in a young woman, aged 22 years. She had suffered from numbness and weakness in the legs for three months before I saw her. He gait was feeble and spastic in character. The flexor movements at the hip, knee, and ankle were weaker than normal; the extensor movements were fairly strong. The legs were very rigid; the knee-jerk was much exaggerated, and there was well-marked ankle clonus. The right abdominal reflexes were present, the left could not be obtained; the plantar reflex was absent. The cutaneous sensibility was unimpaired; micturition was somewhat

delayed. After a full consideration of the case I concluded that it was not one of hysteria and that the diagnosis rested between a dorsal myelitis and disseminated sclerosis, the latter being by far the most likely. The patient made a good recovery and Dr. Robinson informed me the other day that she was still quite well.

Is this an instance of mistaken diagnosis or one of recovery from serious disease? Let me insist on the character of the ankle clonus. It was well marked and quite different from the feeble loose variety met with in hysterical subjects, and with experience of other similar cases I am convinced that paralysis with a true foot clonus, apart from hysterical contracture, is occasionally recovered from. Dr. Buzzard has recorded cases in which apparent recovery from disseminated sclerosis has lasted four or five years; hence, it is not impossible that the patient referred to, who has been free from symptoms for nearly four years, is not entirely out of danger. As to the absence of the plantar reflex I have observed its occurrence in other cases of disseminated sclerosis. In one case which I reported some years ago the reflex was absent till towards the termination of the disease, and although I recognise the importance of the extensor response as an indication of affections of the upper neuron I do not regard it as a pathognomonic sign.

CASE 6.—This case was one of atrophic paralysis affecting a girl, aged nine years, whom I examined in October, 1895. Both feet were dropped and all the muscles on the front of the legs were paralysed and wasted. The knee-jerks were absent and sensation was normal; there was no affection of the bladder or of the rectum. A careful examination of the spine revealed nothing abnormal. The diagnosis seemed to rest between acute anterior poliomyelitis and a motor type of multiple neuritis. I considered the former diagnosis the more probable of the two and gave a cautious prognosis and prescribed massage and other local stimulating treatment. In a year's time the muscles had almost completely recovered their normal bulk and power. In response to a letter she came to see me last August, just six years from the onset of the disease. The girl had a robust appearance and her legs were quite healthy and strong. She told me that occasionally she walked rather clumsily and that she was subject to cold feet. The right knee-jerk was normal and the left was a little exaggerated. These symptoms seemed to support the original diagnosis and I am inclined to regard the case as an instance of recovery from acute anterior poliomyelitis.

I will now leave cases of doubtful nature in order to have time to consider the course of diseases in which the diagnosis is certain and where there can be no doubt that the symptoms are associated with obvious structural changes.

CASE 7.—Some time ago I saw a child, aged four years, in the later stages of tuberculous meningitis, who suddenly passed from a state of deep coma to apparent convalescence; for a few hours he was bright, spoke to his mother, and played with his toys and then relapsed into fatal unconsciousness. Such fallacious improvement in this disease is well known and would not deceive the skilled observer. It is worth noting, because it seems to indicate that the freely circulating toxin which produces the coma may have its effects temporarily arrested by an antitoxin, or in some other way, and taken in conjunction with exceptional cases of recovery from tuberculous meningitis it gives rise to a hope that some day an antitoxin may be discovered which will counteract the effects of the poison.

The next case I would refer to was seen by Dr. Dreschfeld and Dr. Little and was diagnosed acute disseminated myelitis after measles.

CASE 8.—The patient was a young woman, aged 18 years, who the day after taking a cold bath broke out with the rash of measles. Whilst recovering from the attack of measles she complained of intense headache, of weakness of the legs, and of pain in the back. It was found that she had optic neuritis, and in a few days she became totally blind. The blindness was followed by paralysis, first of the legs and then of the arm; their cutaneous sensibility was also markedly impaired. There was retention of urine, with occasional incontinence. Within a month from the onset of measles all four limbs were completely paralysed. A fortnight later motor power began to return and in about four months the girl was quite well.

A study of the course of chronic nervous diseases such as disseminated sclerosis, locomotor ataxy, general paralysis, and myelitis is also full of interest in connexion with our present subject. It teaches us that the downward progress, which unfortunately characterises the majority of cases, is by no means made by a constant succession of regular steps. On the contrary, it presents a most irregular course, of which the variations are infinite both in kind and in time of succession. Arrest of a chronic disease may occur at any stage; and while, as a rule, it is only temporary, it may be permanent. We are impressed, not only with the rare complete recoveries which may occur, but with the stationary periods, with the periods of marked improvement, and with the disappearance of individual symptoms, and their replacement sooner or later by others of the same or different kind. These points have been so ably illustrated by Dr. Buzzard in his studies on disseminated sclerosis that I need not further refer to that disease except to state that I could give examples from cases of my own of the various phases he describes and of the risks to diagnosis from the presence of hysterical manifestations to which he draws such just attention.

The clinical histories of locomotor ataxy and general paralysis are prolific in instances of arrested progress and of alternating periods of improvement and breakdowns. Sometimes, as in the following case, prolonged improvement or apparent recovery may be followed by symptoms almost malignant in their severity and rapidity of progress.

CASE 9.—The patient, a man, aged 27 years, consulted me in August, 1891, and was subsequently seen by Sir Thomas Barlow. When first seen he had definite ataxia, shooting pains in the legs, delayed sensation, delayed micturition, and the knee-jerk was absent. Some of these symptoms subsided, especially the bladder disturbance. He went to Aix-la-Chapelle and was much benefited by the treatment. In September, 1892, he paid a second visit to Aix, and there was still further improvement. He was married in December and continued to improve steadily. In May, 1893—that is, nearly two years after I first saw him—he wrote as follows: "I have regained my power of work and no longer experience extreme fatigue or distressing symptoms of any kind. My gait in walking is practically normal and I can daily walk any distance with as little exertion as before the complaint overtook me. The only remaining symptoms I notice are anæsthesia in the toes and some clumsiness in running movements, which, however, is much less when the muscles are fresh than when they are tired. The knee-jerk is still absent." A few months later, however, fresh symptoms developed—namely, œdema of the ankles and some small perforating ulcers. He was sent to undergo Erb's treatment at Heidelberg. This did not answer at all; he had a succession of bad arthropathies affecting the hips, the knees, and the shoulders. A little later symptoms of general paralysis set in rather abruptly and he was sent to an asylum.

Additional interest is attached to this case owing to its etiology. It is certain that the patient had not acquired syphilis in the ordinary way; he had a protracted illness after vaccination in infancy, which the medical man who vaccinated him regarded as due to inoculated syphilis.

Similar varying phases characterise the progress of general paralysis.

CASE 10.—A medical man suffered from well-marked symptoms of this disease and his friends were advised to sell his practice. They did so. Subsequently he recovered to such an extent that he appeared to be quite well. He married, and remained in what seemed to be in good health for about a year; then he suddenly broke down with aggravated symptoms of general paralysis and died shortly after.

What is the pathology of these variations in progress? I would submit that they support the view of a general toxic condition rather than that which has recently been so ably advocated by Dr. Mott—namely, that in tabes and general paralysis the syphilitic poison has so lowered the vitality of nerve elements that they undergo a primary and progressive decay. Let me again observe that the course of these diseases is not steadily progressive, that a subsidence of symptoms is followed by fresh outbursts, and that apparent recovery is often suddenly interrupted by the development of acute symptoms in various parts of the body. Such fluctuations remind one in a way of the temperature chart of a prolonged case of enteric fever in which at irregular intervals a series of high temperatures alternates with a series of low ones, the high curve corresponding to a fresh development of toxins, the low curve corresponding to abatement of their action. It is difficult to understand how the ups and downs which are such marked features in the clinical history of chronic nervous diseases can be explained

on the hypothesis of primary progressive degeneration of neurons owing to exhaustion of their specific vital energy and apart from the direct action of toxins circulating in the blood.

PROGNOSIS IN RELATION TO TREATMENT.

If I am right in assuming that a poison is the most common exciting cause of diseases of the nervous system, prognosis will vary with knowledge of the proper treatment for elimination of the poison and of the effects produced by it. But in most cases we know neither the nature of the poison nor the manner in which it enters the circulation, hence treatment is purely empirical and often fails. When we do know what the poison is and how it is introduced into the blood, as in the case of lead, we can stop any further introduction of the poison and then try to eliminate what is already present. Our methods of elimination, however, are still too crude for the purpose. We may employ massage and baths, administer purgatives and alteratives, and place the patient under the best hygienic conditions, often without producing any immediate result, witness the persistance of some cases of peripheral neuritis or neurasthenia in spite of the most energetic treatment and our inability to stop the progress of an early myelitis. In addition to remedies for the elimination of poisons we want others to aid us in counteracting their effects, and here we must hope for fresh discoveries regarding the effects of glandular extracts and the nature of toxins and their antitoxins. In this connexion the influence of one disease upon another is worthy of renewed investigation. Two examples may be mentioned. A boy with whooping-cough was attacked with most severe urticaria; the whooping-cough quickly subsided. A man whilst suffering from severe neuralgia on the right side of the neck had an attack of bronchitis. Its onset was associated with a sudden disappearance of the neuralgia.

The possibility that a second attack of the same disease may have a beneficial effect on the symptoms left by a first attack is suggested by a case which was recently under the care of Dr. Dreschfeld. A man whilst suffering from influenza began to show symptoms of grave mental disturbance. He talked incoherently, was dull and apathetic, and passed his excreta into the bed. In a few weeks he was sufficiently recovered to take a holiday. Two months later he resumed his business, but his mental vigour was much less than before his illness. Six months after the first attack he had another attack of influenza and was very much afraid that his former symptoms would return; but, to the astonishment of himself, his friends, and his medical attendant, he made a rapid recovery, lost all his old symptoms, and regained complete health, both mental and physical. We have, further, to study the influence of one part of the nervous system upon another part. Thus, a knowledge of the value of sensory impulses in maintaining the proper nutrition of motor neurones affords an explanation of the beneficial effects of massage, passive movements, and galvanism as stimulants to the regeneration of damaged nerve tissue. We also recognise the important influence that cheerful surroundings, sunlight, and other psychical stimulants may have upon morbid processes, and we admit the possibility that a powerful emotion may initiate a change for the better, either by stimulating the metabolism of diseased tissue or by opening up fresh paths for the transmission of motor or sensory impulses. As Dr. Mott points out: "Consciously and unconsciously, a continuous stream of impulses is pouring into the nervous system from without by the sensory channels, which are the avenues of experience and intelligence, and our bodily and psychical life depends upon the existence of such stimuli."

A consideration of these and of other facts which, as I have indicated, may be derived from a study of pathology and of the history of symptoms gives us hope for the future. It suggests that further investigations—clinical, pathological, and chemical—will do much to lighten the gloom which at present surrounds the prognosis of so many disorders of the nervous system.

PLYMOUTH ROYAL EYE INFIRMARY.—The formal opening of the Plymouth Royal Eye Infirmary took place on Oct. 30th, the ceremony being performed by Lady Mary Parker in the absence through illness of her mother, the Countess of Morley. There was a large gathering and the Earl of Morley made a strong appeal for subscriptions towards the deficit on the building, which amounts to £1300. £191 were subscribed at the meeting.

An Address
ON
THE PERSONAL FACTOR IN TUBERCULOSIS.

Delivered before the Liverpool Medical Institution on Oct. 24th, 1901,

BY SIR DYCE DUCKWORTH, M.D., LL.D. EDIN., F.R.C.P. LOND.,
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MR. PRESIDENT AND GENTLEMEN,—It will not be denied that the art of medicine, and the science of pathology in particular, are at the present time largely dominated by conceptions derived from bacteriology. The progress of medical knowledge in the past has, with each fresh acquisition in any part of it, been commonly accompanied by a wave of enthusiasm which spread itself widely over the profession. In the face of any new revelations in science the tendency is to lose sight more or less of the older conceptions regarding the point in question. The lines of thought and action are henceforth projected vigorously in the new direction, and the older ideas, if not actually excluded, tend to be ignored or possibly forgotten. That this has occurred in respect of the doctrines of bacteriology can hardly be disputed, though all of us readily admit that these in themselves have constituted one of the most momentous triumphs of modern medicine. At such a time it becomes, as I believe, the duty of teachers of medicine to place these new doctrines in appropriate relation with those that have hitherto been held on the subject in question, and to indicate how the new teaching either supports or subverts the old. I have always agreed with the opinion expressed by the late Sir William Jenner that dogmatic teaching is essential for the student, and that it is unsafe, with a view to his future career, to allow many suggestions of doubt or any nebulous conceptions to occupy his mind. The faculty of apprehension and clear thinking has to be cultivated in the young. Doubts and difficulties will assuredly not fail to assail the mind in due time. Old or erroneous doctrines may then be more safely discarded and cut adrift, but they will be replaced by others; and the mature man, having learned to act on principles, will thus always have a faith to guide him. Otherwise he is apt throughout life to be the sport of shifting winds of doctrine and to be devoid of any firm or established principles.

I am led thus to preface the observations which I am about to make respecting the views which are at the present time much occupying the mind of the profession in regard to the modern doctrine of tuberculosis. We are apt to be enamoured by startling revelations in our art which disclose to us new vistas, and bid fair to herald the dawn of a day in which we are to be equipped with fresh powers wherewith to combat maladies which have hitherto baffled us. If we calmly take our course at such a time and are not so overcome by enthusiasm as to cast aside or to forget all the older conceptions that have been held on the particular subject we do well. I think that it must be admitted that some amongst us have been carried away by the latest teaching which has revealed to us the intimate nature of tuberculosis; that they have almost, if not altogether, lost sight of one of the most important elements concerned in the question—to wit, the *personal factor*, or the relation of the host towards the intruding and infecting parasite. Yet this is surely a matter of supreme importance. A perusal of most of the literature of the subject as presented to us to-day distinctly leads to the idea that human beings the world over are in constant risk of infection by tubercle bacilli, which are ever ready to alight upon them and to work out their malign developments in some fashion. I believe that there are not a few amongst us who are deliberately prepared to assert this view of the case. I propose in this communication to deny this conception, to try to indicate what manner of persons are those who most readily fall a prey to tuberculosis, and also to point out some of the conditions which prevail in those who manifest resistance to, or absolute immunity from, this scourge. We are familiar with the varying degrees of susceptibility to tuberculosis met with in different classes of

animals; in man there are evidently great differences in regard to predisposition to tuberculous infection, and the same varying degree of immunity is also witnessed in him towards many other infections.

In order to discuss this matter it is necessary to revert to some of the teachings of the older clinicians who had to face the problem in their day, and who, unprovided with the modern methods of research, formed opinions of weight and cogency, founded on close observation and a patient consideration of the facts which came before them exactly as they come before us. A study of their views should at once convince us that the whole field of clinical medicine is not covered by modern bacteriology, nor yet by modern pathology. As practising physicians we have to deal with humanity, that is, with individual human units, and the latter are not like so many ninepins turned off a lathe and out of one block. If we treat diseases and not patients, we may be scientists, but we are certainly not physicians.

It cannot be denied that the liability to tuberculous infection is limited, that certain persons are distinctly more prone to fall a prey to it than others, and that, happily, the majority of mankind presents a resistance to it, no doubt varying in degree, but in many cases amounting to practical immunity. It is surely important to recognise such facts, and to try to learn the significance of them if we can.

We have first to discover the peculiarities of those persons whose bodies afford a suitable nidus, or resting place, for the parasitic invasion and development of tubercle bacilli. This problem has only come before us since we have learned that a specific microbic and particulate element is the *causa vera* of tuberculosis. The older physicians had no such knowledge to guide them in their conceptions of the pathogeny of tuberculosis. The heredity of tuberculous disease was for them a fact which they could not dispute. Tuberculous parents produced children who sooner or later either developed the same malady or remained frail and delicate. This heritable tubercular tendency attached, as they believed, to the intimate textures of these individuals, and was ready, under certain provocation, to manifest itself in the lungs, skin, glands, or bones. Although they could find no morbid anatomy in such cases before the tuberculous process declared itself in some part of the body they regarded the quality, habit, and tendencies of these particular bodily tissues as differently endowed from those of robust persons void of this peculiar tendency. To this condition or diathetic habit of body they applied the term "scrofulous" or "strumous"—one seldom indeed met with in these days, and discarded for various reasons, none of which, I will add, appear to me to be justifiable. The word "scrofula" has always been offensive to the public and the term "struma" has often replaced it euphemistically. Both terms have almost ceased to have any significance in the professional mind since the discovery of Koch, and now we find it deliberately asserted by many pathologists that there is no such condition as that denoted by these words—that, in fact, struma is neither less nor more than tuberculosis. The recognition of Koch's bacillus has, in their opinion, compelled us to abolish the old conception of scrofula. No struma without tubercle bacilli, they affirm, and I suppose it will then be admitted that everyone infected with tubercle consequently becomes strumous. If this is the case, scrofula, as formerly understood, has necessarily ceased to be. As this idea has certainly been published and no one has ventured to offer objection to it so far as I am aware, I will strictly and absolutely deny this declaration. It is a narrow conception of the bodily condition denoted by the term "struma" to imagine that it is vulnerable alone to tuberculous influence, for it is oversensitive to all irritants and infections.

Let us inquire in detail as to the peculiarities of this condition of body as we recognise it clinically, for none but pure pathologists who are not practising physicians can possibly doubt its existence and wide prevalence. It is not in accord with modern teaching anywhere but in France to discuss or to appreciate any particular habits of body or diathetic conditions. These are now regarded as mediæval and effete lucubrations of the older physicians who evolved them out of their inner consciousness, as conditions which represent nothing that we, with our superior knowledge and attainments, can recognise nowadays. To hold such a view is, in my opinion, to be possessed of very inferior clinical instincts, and to be void of that accurate and penetrating observation which is necessary for the detection and comprehension of many morbid conditions which come before us.

According to Osler,[1] "scrofula is tubercle, as it has been shown that the bacillus of Koch is the essential element." As I have just remarked, many of our modern pathologists take this view. My friend Mr. W. K. Treves, of Margate, whose clinical experience is very large on this subject, and to whom I wrote for his opinion, believes that "scrofula is synonymous with tuberculosis in some form or other and that a scrofulous habit of body is already tuberculised." "Given no tubercular bacilli, there is no scrofula." He recognises, however, "a class of individuals who are especially liable to tuberculous disease in whom it is difficult to stop, and especially prone to recur." "They are flabby, inclined to stoutness, with a thick coarse skin, much cellular tissue, purplish or dusky complexion, and have a poor circulation," but he is not aware if such persons can be called scrofulous before they manifest tuberculous disease. He recognises, further, that these subjects are vulnerable to any variety of irritant and recover badly from injuries. "They are always catarrhal and suffer from congested and unhealthy throats." I am in full agreement with the latter observations. They relate to the class I have in my mind, to those who are as yet free from tuberculous manifestations, although especially prone to be infected. They are of a scrofulous or strumous habit of body, as yet untainted. We surely see many examples and we certainly cannot regard them physiognomically or texturally as types of any other condition than that of scrofula. To use Sir John Simon's[2] words, I would regard such subjects as "inheritors of an imperfect pattern of development" in the same way as we conceive others to inherit a disposition to gout, rheumatism, or cancer, "an inherited personal and particular law of development, which affixes a something peculiar and individual to their passage through each period of their existence."

Sir Thomas Watson[3] held the same opinions. "The formation of tubercle," he wrote, "is closely linked with the existence of the scrofulous diathesis," but he distinctly recognised scrofulous manifestations as occurring independently of tuberculisation, and noted that the latter was modified by the variety of inflammation which existed in the scrofulous subject, a point that has received but little recognition anywhere. I will grant that the term "scrofulous" is inadequate to express all that is properly denoted by it. Originally, it was applied to the swollen condition of the neck due to adenitis and periadenitis, whereby the patient thus affected assumed somewhat the aspect of a breeding sow (*scrofa*), that is, void of the ordinary constriction of a human neck, and the term "struma" was also employed to denote a scrofulous swelling. But this condition, as rightly understood, is not expressed merely by a local adenitis, which is but one indication of it. A scrofulous habit of body means a great deal more than this. It may be etymologically correct to regard a cervical adenitis as scrofula, but from a clinical point of view we must have regard to a widely-spread and specific quality of tissues which is impressed upon the entire organism. No more classical description of the physiognomical features of this habit of body has ever been given than that by Watson. It was founded on shrewd observation, and the portraiture thus depicted is not seldom brought before us, and may be recognised if we will but honestly regard it. The two types of "pretty" and "ugly" struma are still with us, and we can plainly see that they are the products of the same disposition, though modified. With our present knowledge of the influence of hereditary syphilis on the bodily textures we have no need to regard the features of the "ugly" variety of scrofula as modified by that particular taint. It would be well if the younger physicians read and pondered Watson's lucid lectures on the scrofulous habit of body. Modern text-books completely ignore this teaching and appear to regard the whole question of tuberculosis as finally settled by Koch's discovery. This is certainly not the case. Albeit, we are not to expect to recognise the features of scrofula in their classical form in every example of it, but we may often discover the presence and influence of this constitutional frailty by a study of the ailments, and the special characters they assume, in those who are impressed by it.

The opinion of Sir James Paget on this matter was clear and decided. He defined "scrofula, or struma, as a

[1] Principles and Practice of Medicine, p. 280.
[2] Lectures on General Pathology, 1850, pp. 169, 170.
[3] Lectures on the Principles and Practice of Physic, fourth edition 1857, vol. i., pp. 195, 204; and vol. ii., p. 206.

state of constitution distinguished, in some measure, by peculiarities of appearance even during health, but much more by peculiar liability to certain diseases including pulmonary phthisis. The chief of these 'scrofulous' diseases are various swellings of lymphatic glands, arising from causes which would be inadequate to produce them in ordinary healthy persons. The swellings are due sometimes to mere enlargements, as from an increase of natural structure, sometimes to chronic inflammation, sometimes to more acute inflammation or abscess, sometimes to tuberculous disease of the glands. But besides these, it is usual to reckon as 'scrofulous' affections certain chronic inflammations of joints, slowly progressive ulceration of bones, chronic and frequent ulcers of the cornea, ophthalmia with extreme intolerance of light, but with little of the ordinary consequence of inflammation, frequent chronic abscesses, pustular cutaneous eruptions frequently appearing upon slight affection of the health, or local irritation, habitual swelling and catarrh of the mucous membrane of the nose, and habitual swellings of the upper lip. ..... Certainly these are not all tuberculous diseases."[4] The term "scrofula" includes, he declared, some diseases which are, and many which are not, distinguished by the production of tuberculous matter. Alluding to the proposal to make "scrofulous" and "tuberculous" commensurate terms, he considered it to be doubtfully practicable. "The relation between the two is that the scrofulous constitution implies a peculiar liability to the tuberculous diseases, and that they often coexist." "Many instances of scrofula exist with intense and long-continued disease, but without tubercular deposit, and as many instances of tubercular disease may be found without any of the non-tuberculous affections of scrofula."

These opinions were published long before the discovery of tubercle bacilli, and it has still to be shown that all the alleged scrofulous disorders just described are aroused by, and dependent upon, tuberculous invasion or its influence in any form. I greatly doubt if this can be proved. No one would venture to assert, for example, that ciliary blepharitis, so common in strumous children, is dependent on tuberculosis. We must then regard it strictly as a variety of strumous inflammation. Paget was cautious in stating that the substance found in lymphatic glands commonly known as "scrofulous" matter could not for certain be known as truly tuberculous matter or degenerate lymph or pus. We can tell now whether this be so or not, and may discover that sometimes we are dealing with the one and sometimes with the other.

In discussing this question, Professor Clifford Allbutt[5] remarks: "Whether scrofula is always due to the tubercle bacillus, or always associated with it, is not yet decided. It seems probable that scrofula may arise by the agency of microbes other than tubercles; again, that, originating independently of tubercle, on it tubercle may afterwards supervene; and, once more, that scrofula may be due to tubercle, primarily or even exclusively. No doubt these problems will soon be settled." These hypotheses indicate a shaking of the old faith which has occurred since Koch's discovery. I do not believe that we have sufficient justification for a change of opinion on this matter. We see more clearly how certain conditions, induced either by inheritance or by acquirement, provide a suitable soil for the specific infection.[6] Respecting acquired conditions which may render persons of originally good constitution liable to tuberculous infection, we know that these are all of a character to induce a lowered vitality and so to render the bodily textures unfit to resist the onset of tuberculosis. The inherent immunity appears to cease with a lowered standard of health, more or less according to the nature of the debility and the degree of intensity of the infection. I hold, then, that a scrofulous person is not, and need not be, a tuberculised person.

We meet with another class of subjects who present a marked resistance to tuberculosis in those who manifest a proclivity to gout. In the offspring of gouty parentage and ancestry it is most rare to meet with any strumous indications or disorders. Tuberculosis in a gouty subject is rarely witnessed and, in my experience, its progress is either very slow or apt to be arrested. There is thus a manifest antagonism between a gouty and a strumous proclivity. We may further note that a line of treatment which is appropriate to those who are goutily disposed is unsuitable for strumous subjects, and that what is bad for the gouty is good for the scrofulous—to wit, animal food and wine. The presence of a strain of gout in a strumous subject is thus a saving grace for the individual, modifying the tendency and course of any manifestation of the latter in a favourable way.

I maintain, then, that there is a class of persons who by inheritance, or acquirement, owing to various debilitating conditions, are frail and delicate, endowed with a specific proclivity to become gravely affected by irritants of all kinds, and especially prone to infection by tubercle bacilli. Such persons are of delicate constitution and are apt to manifest this delicacy in various ways throughout life, such developments indicating their scrofulous habit of body. They may never become tuberculous, although always scrofulous. The latter proclivity may blend with other habits of body and seriously modify the ailments induced by them. We have not to wait for tuberculous invasion to occur before we pronounce them scrofulous, since they carry with them the features and characteristics of the scrofulous condition beforehand.

It is therefore a question of tissue or soil-proclivity in the particular host which is to harbour the tuberculous microbe. The ailments of the strumous individual are not necessarily of a tuberculous quality, and the error in modern teaching, as I believe, is to assert that this is the case. When tuberculosis occurs at any point in a strumous subject we must certainly regard it as such, but we have no justification in assuming the existence of it before such manifestations are present. Some have imagined that the indications of scrofula, as properly recognised, are due to the existence of some pre-existing condition of tubercle bacilli in the tissues, but we have no knowledge of such a condition, nor, indeed, of the extra-corporeal stages or environments of the bacillus anywhere. It has even been asserted that the hereditary transmission of the microphyte constitutes the unique and exclusive method employed by nature to propagate tuberculosis, but these organisms are then in a purely passive or latent condition. If no active tuberculosis occurs during the life of the affected individual the germs are supposed never to have been aroused into activity.[7] This is, of course, a pure hypothesis and cannot be accepted without absolute proof (Cohnheim and Baumgarten). We have some trustworthy facts to support the belief that the fœtus in utero may be directly infected by tubercle bacilli. Women suffering from advanced phthisis have borne children in whose organs—lympharia, liver, spleen, lungs, and endocardium—have been found bacilli of tubercle. The placenta is infected in these cases and is doubtless the medium of contamination. Dr. J. W. Ballantyne of Edinburgh, who has reported cases of this kind, believes that the problem of tuberculous heredity pertains to the germinal period of intra-uterine life,[8] and wisely remarks that "a healthy placenta is the best friend that the fœtus of a tuberculous mother can have."[9] With these facts before us we cannot deny the direct transmission of tuberculosis as a possibility, but there is no reason to believe that such instances are of common occurrence, and we can in no way admit that they alone constitute the type of case which should be regarded as scrofulous, for these infected subjects are either still-born or, if born alive, not viable. A similar transmission is met with, though rarely, in the calf.

I have already quoted the opinion of Osler to the effect that "scrofula is tubercle," but I find that he materially qualifies it, if he does not practically deny it, by adding, "After all, as Virchow pointed out, increased vulnerability of the tissues, however brought about, is the important factor in scrofula." That is exactly my contention.

There remain to be mentioned, amongst causes which diminish resistance to tuberculous invasion, or in other words, promote proclivity or vulnerability to it, the abuse of alcohol, the occurrence of syphilis, of saccharine diabetes,

[4] Lectures on Surgical Pathology, second edition, 1863, p. 321. Clinical Lectures and Essays, second edition, 1879, p. 421.

[5] System of Medicine, 1897, vol. iv., p. 597.

[6] Professor Martius of Rostock (German Association for the Advancement of Science and Medicine, Hamburg, September, 1901) recently expressed the opinion that heredity, as regards tuberculosis, did not necessarily mean that the tubercle bacillus was present in the spermatozoon or the ovum; it meant the transmission of predisposition to tuberculosis, and there was abundant evidence to show that predisposition existed. On this point Dr. Percy Kidd's article on "Phthisis Pulmonalis" in Allbutt's System of Medicine (vol. v., p. 171) may be consulted.

[7] Dr. R. R. Ballota Taylor: La Porte d'Entrée pour la Bacille de la Tuberculose, Transactions of the International Medical Congress, Paris, 1900.

[8] Vide Allbutt's System of Medicine, vol. v., p. 173.

[9] Lecture at the Polyclinic, London, 1899.

and of cancer, the latter proving inimical to the spread of it, as Dr. Sidney Martin has pointed out, even if the condition induced by it tends to invasion of the body.

I have alluded to the specific changes accompanying tuberculosis which are witnessed in scrofulous subjects. The process is modified in them, and the associated inflammatory products tend to soften and break down. In the case of gouty subjects the process is varied; there is less tendency to soften, and the products tend towards sclerosis, fibrosis, and calcification, thus inducing arrest and obsolescence of the lesions. We thus see how the particular habit of body avails to modify the phenomena and course of a definite infecting process. I maintain that these facts in pathology are now too much lost sight of, and that we have been of late too much concerned with the bald facts of bacteriology and infection in regard to the whole subject of tuberculosis. We must turn aside and consider the condition of the host in this matter.

We may, I believe, regard it as certain that for the production of tuberculosis two factors are necessarily concerned: (*a*) the parasite, and (*b*) the nature and condition of health, or diathetic habit, of the host. Our modern pathologists "reckon without their host." We fail in comprehending many pathogenic conditions if we disregard the personal factor in each case. Thus, uricæmia as one factor does not explain the production of gout; rheumatic poison as a single factor will not explain the production of chorea. In these and other morbid states, the condition of the organism, attacked or invaded by matters which are toxic to it, has to be reckoned with, and its determining influence for good or for evil is of supreme importance. If we pay due heed to this question, we cannot fail to see that our duties lie in the direction of fortifying by all means those subjects who from any cause are more than others prone to infection. Our warfare is not to be confined to the parasite alone. We do well to intercept it and to destroy it everywhere. But we have also to make our frail and predisposed subjects robust by securing for them appropriate environment and adequate and suitable dietary, and to follow up their special ailments with assiduity till recovery is well established. We come too late into action if we wait till the enemy has entered the gates. We have to anticipate his assault and to challenge his entry. If we do this, and thus pay due regard to the personal factor in tuberculosis, which, from a clinical standpoint, as I maintain, we are bound to do, we shall not improbably do more to avert this terrible scourge from humanity than by any other course of procedure we may decide to follow.

Lastly, I will venture to say that we hear too much in these days of the so-called "cure" of tuberculosis. This is an improper term to apply to cases of this disease which have progressed favourably and in which the local disorder has become quiescent. As we well know, there may not seldom be a recrudescence and a relapse of the process at any period during the lifetime of the patient. We are not entitled to regard the most favourable termination of tuberculous lesions as constituting anything more than an arrest of the process, as has been well pointed out to us by Dr. James Edward Pollock, Dr. C. Theodore Williams, and, more recently again, with all the weight of his authority, by Virchow. If we can determine the peculiar habit of body and predisposition of the affected individual, we may sometimes be enabled to frame a more certain prognosis as to the quality and completeness of the arrest in particular cases. More than this we cannot do.

THE FREEZING-POINT OF THE BLOOD AND SECRETIONS AS AN AID TO PROGNOSIS.

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THE use of the thermometer in medicine and surgery has already been of much value in the study of disease, and though in some respects, such as surface thermometry, it has not gained for itself a recognised position, yet the appreciation of the information obtainable by the use of the clinical thermometer has become steadily greater as our experience and knowledge of it have extended.

Another employment of thermometry, in quite a different direction, has recently been introduced on the continent, and is destined, I think, to attain a very high place in the estimation of the clinician, whether medical or surgical, on account of the valuable data which it is able to afford us regarding certain questions, otherwise scarcely to be solved, which call for an answer when grave decisions regarding prognosis and treatment are to be reached. I refer to the use of cryoscopy, or the determination of the freezing-point of fluids.

Van't Hoffs and Raoult pointed out that fluids freeze at a lower temperature in proportion to the quantities they contain of impurities dissolved in them; and Korányi, applying the law to the blood and urine, showed that normal blood possessed a fixed freezing-point of 0·56° C. below that of distilled water which forms the zero of that thermometrical scale. From this point it does not vary more than by one-hundredth of a degree up or down. Urine is not so steadfast, varying in its freezing-point about a whole degree, from − 1° to − 2° C., in proportion to the solids which it contains in a state of solution.

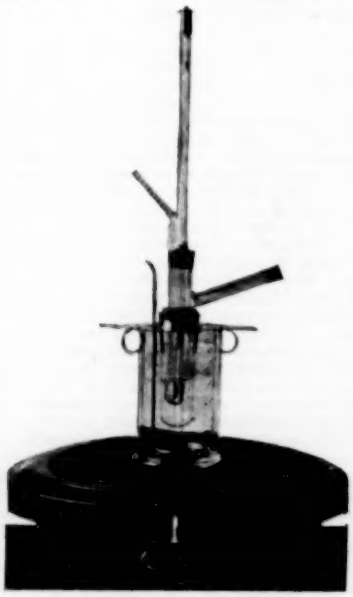
Korányi's observations have been applied to the study of abnormal blood by many German and French writers—Lindemann, Dreser, Richter, Roth, Senator, Claude, Balthazard, and Kümmell, particularly by Kümmell, an eminent Hamburg surgeon. Their conclusions may be thus briefly stated. So long as the blood is healthy and has its effete constituents adequately eliminated it retains, as already said, its normal freezing-point—viz., − 0·56°, or within $\frac{1}{10}$° of that figure, varying, that is to say, from − 0·55° to − 0·57°, but if elimination becomes defective the freezing-point sinks below this—to − 0·58°, − 0·60°, even to − 0·71° in one case observed by Kümmell.

The attention of these observers appears to have been mainly directed to the purification of the blood effected by the kidneys, regarding the measurement of which our present knowledge is admittedly defective and where consequently the value of cryoscopy promises to be great.

That our present information regarding kidney elimination is inadequate is constantly felt by surgeons where renal disease is present in a patient requiring operation. We strive in such a case to ascertain how much disease exists; whether the amount of healthy kidney substance be still sufficient so to purify the blood that our operation wounds will heal well; further, whether the lessened kidney elimination that follows operations, especially if performed under an anæsthetic, superadded to the already existing defect, is likely to kill our patient; and, lastly, where the kidney itself is to be operated on, whether the other kidney be sound enough to take over the eliminative work of the two organs. To all these questions, hitherto imperfectly answerable, the use of cryoscopy promises to furnish a definite and satisfactory reply. I believe, too, that it will prove to be of no less value in determining the existence and degree of hepatism, when threatening danger to life or imperilling operations, a condition regarding which little that is satisfactory has hitherto been written although its importance is acknowledged by every surgeon of experience.

The determination of the freezing-point is carried out by Beckmann's apparatus (see illustration), consisting of a jar of ice and salt into which dips a large test-tube, into the mouth of which is inserted through a perforated cork a smaller test-tube about an inch in diameter, so that an air-chamber is left between the tubes. The fluid to be frozen is put into the inner tube. The thermometer used is Beckmann's thermometer, the scale of which has a range of only 6° C., each degree being divided into hundredths, the numbers running from 0·00° to 6·00°. On this scale the zero, that is, the freezing-point of distilled water, has first to be found, distilled water being for this purpose placed in the inner tube and the thermometer plunged into it until its bulb is covered. The freezing mixture cools the fluid and the mercury first falls down to, and then descends a couple of degrees or so below, the freezing-point. At the moment at which congelation begins the mercury rises again quickly and within a few minutes attains a steady maximum, which is the true freezing-point. During this observation the fluid is kept constantly stirred by a ring-shaped platinum stirrer that passes down between the inner tube and the thermometer. If the zero thus found be above the six degrees given on the scale a little mercury is shaken off the column into a reservoir which exists for the purpose at the upper end of the thermometer; or if, on the other hand, it be below the scale, some mercury is shaken

from the reservoir into the column until the zero falls somewhere in the upper end of the scale. This point is then noted, and all calculations of temperatures below zero are found by subtracting from it. If, for instance, the zero were 4·01°, then the normal freezing-point of blood is 3·45°, that is 0·56° lower.



Beckmann's freezing-point apparatus.

In cryoscopy of the blood the sample to be tested may be drawn from any large vein about the hand, wrist, or forearm, or in the usual venesection position at the bend of the elbow. It may be drawn directly into the apparatus or, better, into a stoppered bottle where it can be secured until the cryoscopy is conveniently applicable. Coagulation makes no difference to its freezing-point, which is found in the manner just described for obtaining that of distilled water. When once the zero of the thermometer has been accurately determined it is necessary that it be carried very gently and subjected to no jarring or agitation, lest its correctness be impaired by shaking mercury into or out of the column. As the instrument is made of Abbé's glass, the zero remains without alteration from subsequent contraction.

Other fluids of the body besides the blood may be tested by cryoscopy. Kümmell applies the process to the urine from both kidneys as it is passed from the bladder, or to that drawn off from a single ureter, and combines it with the administration of phloridzin, &c., thus testing the eliminating power of the organ. Personally I have also so employed it, but have ceased to use it, as the freezing-point fluctuates more than an entire degree, thus giving no better indication of the quantities eliminated than may be obtained in much less time by taking the specific gravity. I have also used the method, or endeavoured to do so, in testing the saliva from Steno's duct, but it is difficult to apply and has no special advantage. But in regard to the blood it would be difficult, I think, to exaggerate the usefulness of cryoscopy, or the accuracy of the information which it places at our disposal. Brief notes of some of the cases where I have found it useful may render this evident.

CASE 1.—The patient had for three years been recovering from an attack of double interstitial nephritis, and traces of albumin were still always present. The specific gravity of the urine was 1020 and he was so strong and well that he desired to resume his studies for the Church. His blood froze at −0·53°—i.e., $\frac{3}{100}$° *higher* than normal. He resumed his studies.

CASE 2.—A patient under the care of Dr. J. Stephen of Peterhead wished to undergo a radical cure of an inguinal hernia. His urine was free from albumin or sugar and he appeared to be a very strong man; but a slight yellowness of the conjunctiva suggested hepatism, that insidious foe of the operating surgeon. His blood froze at −0·58°—i.e., $\frac{8}{100}$° *below* normal. The operation was declined and a truss was fitted. He died four months later. This patient would certainly, save for the cryoscopy, have been operated upon, and probably with a fatal result.

CASE 3.—A patient who was under the care of Professor W. Stephenson wished to undergo an operation for relapse of a ventral hernia after a previously attempted radical cure. Her blood froze at −0·72°—i.e., $\frac{14}{100}$° *below* normal, her urine at −1·775°. In this case the usual routine urine examination detected glycosuria and the cryoscopy merely confirmed the existence of the disease. Operation was declined and a truss was used.

CASE 4.—A patient under the care of Dr. T. B. Gibson with symptoms of unilateral renal disease, probably calculous, where radiography had failed to reveal anything, in whom the analysis of the catarrhal urine showed a specific gravity varying between 1004 and 1018, but whose general condition made the prudence of an exploratory nephrotomy questionable, had cryoscopy applied to the blood. It froze at −0·54° —i.e., $\frac{3}{100}$° *above* normal. Operation was therefore decided on so soon as the patient's circumstances permitted. Here it is to be noted that while the cryoscopy of the blood furnished a satisfactory verdict that of the urine was as indefinite as its specific gravity, for it varied between −0·46° and −1·49° in the same day.

CASE 5.—The patient was under the care of Dr. J. D. Wyness. He suffered from bladder paralysis due to many years' neglect of a cicatricial stricture that admitted only minute bougies. The stricture was dilated and the bladder paralysis was treated by Dr. J. R. Levack with faradisation without removing the paralysis. The patient lived a catheter life, but without any trouble. His urine had a specific gravity of 1010, contained no sugar or albumin, and the question arising whether he should resume his ordinary life and work it was answered in the affirmative by the freezing-point of his blood, which was −0·56°.

CASE 6.—The patient who was under the care of Dr. R. S. Turner of Keith, had a cystic fibro-sarcoma of the left kidney as big as a child's head. She was 71 years of age, and the propriety of operation had to be determined. Her urine had a specific gravity of 1016 to 1015, was free from sugar, but sometimes contained traces of albumin, sometimes none. The freezing-point of her blood was −0·556°, faintly *above* normal, and hæmacytometry showed the red blood corpuscles numbering 4,560,000 instead of 5,000,000 per cubic millimetre, while the leucocytes were four times more numerous than they ought to have been. The cryoscopy of the blood did not alone, perhaps, decide in this case whether the operation for removal of the tumour was or was not justifiable, but it was slightly unfavourable and enabled a truer view of the patient's condition to be obtained than was otherwise practicable. The decision was against operating, at least in the meantime.

CASE 7.—A patient under the care of Dr. J. Pender Smith of Dingwall who was operated upon for cæcal cancer lost strength steadily after the operation. The urine had a specific gravity of 1021; it contained no sugar, but was albuminous. Here the blood cryoscopy, which showed a freezing-point of −0·49°, or $\frac{1}{100}$° *above* normal, showed that the kidneys, though diseased, were not the cause of the deterioration.

CASE 8.—A patient under the care of Dr. Ashley W. Mackintosh suffered from retention of urine due to an old urethral organic stricture admitting a catheter of No. 6 English scale. The urine had a specific gravity of 1006 and was albuminous. His blood froze at −0·59°, or $\frac{9}{100}$° *below* normal, showing that the kidney elimination was imperfect, and that, though apparently a strong and healthy man, he was approaching uræmia, and was an unfit subject for treatment by operative measures.

CASE 9.—The following case bears on the subject of hepatism. The patient, who was under the care of Dr. Gibson, had an *évidement* of a suppurating bursa of the great toe carried out under chloroform. The anæsthetic produced great general disturbance, jaundice, vomiting, and stomach disorder. The urine, which was of specific gravity 1026, was albuminous, but there was no sugar, while the blood froze at −0·62°, or $\frac{12}{100}$° *below* normal, a result due to the liver disturbance more than to that of the kidneys.

CASE 10.—The patient, who was under the care of Dr. A. Mitchell of Old Aberdeen and of Professor J. T. Cash, was

suffering from an old empyema. She was greatly wasted by suppuration and amyloid disease, with albuminuria, 238 grains of urea being eliminated per diem by the kidneys. She had clubbed fingers, and she appeared to be in an evil case. But the cryoscopy of the blood showed — 0·57°, or only $\frac{1}{10}$° *below* normal, and an extensive operation was successfully ventured upon on the faith of that observation.

CASE 11.—A patient under the care of Dr. W. Hector of Tarland had prostatic hypertrophy and violent cystitis as the result of many years of disease. Irrigation and catheterism answered for a time, but hæmaturia of an obstinate nature set in. Double vasectomy cured the hæmorrhage and greatly diminished the enormous prostate. But the pain and cystitis recurred, and the patient's sufferings became so violent that bladder drainage through the perineum was inevitable, whatever the consequences might be. Albuminuria, with urine of a specific gravity of 1010, left the renal condition uncertain; but cryoscopy of the blood showed — 0·61°, or $\frac{1}{10}$° *below* normal. Still the operation was absolutely necessary to relieve the pain, which narcotics and all other measures entirely failed to do. It was followed in a few days by uræmia and death.

CASE 12.—The patient, who was under the care of Dr. C. Adam of Elgin, had suffered from phlegmasia dolens for some years and had recovered, but lately the swelling had recommenced. No phlebitis or lymphadenitis was found, but a mere trace of albumin and a low specific gravity (1002) of the urine threw suspicion on the kidneys. This was confirmed by cryoscopy of the blood, which showed its freezing-point to be *lowered* to — 0·59°, a condition due, almost certainly, to defective elimination by both kidneys.

These 12 cases, to which I might add more, illustrate the services which cryoscopy of the blood is in a position to render under circumstances in which we have hitherto had little more than conjecture to aid us and they justify the expectation that the method will soon be universally adopted. In Cases 1, 4, 6, and 7 it will be noted that the blood froze from $\frac{1}{10}$° to $\frac{1}{15}$° *above* its normal point. Cases 6 and 7 were hydræmic, but Cases 1 and 4 showed no signs of either that or anæmia. Possibly a condition of unusual purity of the blood may exist, with a higher freezing-point than normal, but what is the significance of such an elevation of its freezing-point in these cases I am unable to say. It will, I suspect, prove to be a symptom of disease. In Cases 2 and 9 the lowering of the freezing-point was clearly owing to hepatic, not renal disease, and I am of opinion that not the least valuable import of cryoscopy will be its power of indicating otherwise undetectable disease of the liver, at least in the practice of the operating surgeon.

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Aberdeen.

THE SANATORIUM IN THE TREATMENT OF PHTHISIS.[1]

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MY interest in this subject was first aroused by Dr. Archibald Smith, of Lima, with whom I had some acquaintance in the "eighteen-sixties." He spoke, for the first time in my experience, with confidence of the curability of the disease, especially as treated in the mountains of Peru. These new hopes were fortified by Henry Bennet, with whose methods and results I became familiar, both in his writings and in personal association with him at home and in the Riviera. The first records, of any considerable value, of the effects of various methods of treatment of the disease were published by Dr. C. J. Williams and Dr. Theodore Williams in 1871, records which did much to instruct and to encourage us. Bennet's influence drew me away for a time from the High Alps as a climate for phthisis, but in 1878 I, after occasional observation of a few cases treated in the Swiss Alps, made the acquaintance at Davos of Dr. Unger and Dr. Ruedi, and I then formed great anticipations of the value of Alpine climate—anticipations which 25 subsequent years have strengthened and formulated.

At that time climate seemed to us to be the paramount factor in the cure; so our admiration was the greater as the remarkable results obtained by Brehmer at Görbersdorf rose into repute, results in which climate played but a secondary part. Brehmer's method, to which nothing important has been added by later physicians, brought the cure of phthisis from a remote and costly achievement, attainable only by wealthy and leisurely patients, near the doors, I had almost said into the homes, of poorer sufferers given up to death. We did not realise the facts which the computations of Birch-Hirschfeld and others have placed beyond question, that then, as now, many persons were recovering from pulmonary phthisis under our eyes; our eyes were not open to see it.

By the modern method we are not only curing the individual, but we are also laying the chief stone of the edifice of prevention. This modern method we may call the method of Brehmer; but it is called more commonly the sanatorium method. To this name some objection has been made; it is said that the method may be carried out independently of the sanatorium. We cannot be guided by the etymology of names—no name can indicate all the connotations of its subject; but I think that this objection is a shallow one. The method was worked out in a sanatorium created for the purpose, it has been tested and perfected in sanatoriums, and if now it can be carried on outside a sanatorium, which is not too readily to be admitted, this is so only by bringing the skill and the conditions of the sanatorium into the home. I should look with little confidence on the home treatment of a phthisical patient by a physician unversed in the practice of the sanatorium, and by a patient who had not had at least a month's training within its precincts. It is, as it were, to tell a boy at home to read his Cæsar and his Xenophon, a little Euclid and algebra, to pat him on the head, bid him be good and industrious, and promise to call in a week or ten days to see how he has got on.

It is no paradox to say that in the congregations of the sanatorium we have learnt individual treatment; that from institutions which may well sink into the thraldom of routine, or lend themselves to the grosser temptations of the hotel-keeper, has issued the doctrine that for the individual sufferer no vigilance is fastidious, no skilled control vexatious. From a highly specialised system we have learnt that for phthisis there is no specific—not even climate; that to speak of the best climate for phthisis, of the best mode of feeding, or again of the best disposal of rest and exercise, is to speak vainly. For scrofulous children, as a rule, the best climate is the sea; for the adult in the third or fourth decade of life the climate of the high Alps, less windy than the sea, even more tonic and perhaps having some virtue in its dryness and rarity, is often the best; the elderly must be content with a milder and more equable resort, which indeed is to be preferred also for many younger patients whose stomachs are unequal to large demands, and whose heat production is slow. On the robuster folk full feeding may be pressed quickly; with the enfeebled, whose stomachs are often relaxed, large and rich meals best agree when they are vomited. To the febrile and overwrought again that prolonged rest, which in vigorous and apyretic persons would be lost time, is precious.

The sanatorium, if on the block system, should stand south-east, on a dry upland site sheltered by pine woods, 200 yards at least away from the building. The front should be slightly crescentic. Most of the rooms should be single, a few may be double for special needs. All must be on the front, the back being given to the service, and to the accommodation of an occasional visitor. The smaller the bedroom, within limits, the better, lest it be used as a sitting-room, whereas it is but a shelter for the bed and for dressing and undressing. There should be no general sitting-rooms, which encourage indoor gossip, except, of course, a dining-room and a spacious and airy entrance-hall on the south front. Every room should have its covered

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balcony, wide enough to take the long chair (or bed) and a table, separated by glazed screens from those next to it, and supplied with convenient electric light. The balcony is the living room of the patient. Airing galleries may be provided for the few who may like them, but they have social and other disadvantages. The balcony, if raised a step or two above the bedroom floor, will not shut out much light from the window below, at any rate not in winter, when the sun is low. Of walls and furniture I will only say that the doors should be double and the walls and floors without angles and well pugged; that wardrobes should be built in the walls, flush with them and the ceiling; that linoleum, with felt under it, makes the most comfortable and the cleanest carpet. The window must occupy the greater part of the south wall, and sliding shutters with louvres must be provided to darken the room for light sleepers, and against stormy weather. Heating is a great difficulty. Open fires, if practicable, are by far the best means of heating. If impracticable the walls should be heated by flues. To heat the air to be respired is wrong, both in principle and in practice. If so-called "radiators" must be used, the radiator must be set against an opening in the outer wall, and the air led over it into the room so as to enter the room at the bottom. Hot air rises, and, do as we may, the inmate of a room so heated is hot in the head and cold in the legs and feet. The roof must be warm in winter and cool in summer. If all passages and corridors be well and equally warmed the heating of the chambers will need less attention.

It is undesirable that patients should take their principal meals in the private room and a dining-hall must be provided; but I have received a bad impression of the dining-rooms of most of the sanatoriums which I have visited. Either they are a whirlpool of draughts, wherein the poor patients can scarcely keep their hair on, or they reek with foul odours. The director of a sanatorium, in many ways admirable, lately ushered me with pride into a handsome dining-hall whose close atmosphere was so thick with the reek of departed dinners that I sickened on the threshold and, muttering some excuse, made my escape. Most of these halls are much too high and not thoroughly air-swept; others are ordinary apartments with the windows taken out, so that the patient must dine in a hurricane, bolting his food and surrendering whatsoever charm dinner might yet have for him. Saloons should give place to sheds or bungalows with sliding walls of louvred shutters which can be adapted to the wind of the day, and afterwards quickly thrown open for coffee and cigarettes, when each patient can sit where he pleases.

If, in obedience to the needs of municipal or other public bodies, such sanatoriums must be built to receive more than 50 patients a physician must be engaged for every multiple of 50—the largest number of patients to which any man can do well. Let us not tolerate again the farce of so-called medical attendance which still persists in many asylums for the insane, to the grievous loss of science and to the detriment of the sick. But in my opinion sanatoriums are designed so large and costly as to deter the benevolent and to encumber the treatment. A hut or villa system in the grounds about a central administrative block is cheaper, more homely, and more efficient. The Japanese house is a good model. The difficulty of ventilating large blocks is insuperable; they will beget the secretary-director, and lead to a barrack or hotel system. Tents are useful, but for temporary purposes only. Ordinary dwelling-houses converted into sanatoriums are makeshifts at best, and unsatisfactory at that.

I repeat that it is vain to talk of a "best climate" for phthisis, even for those who can go where they please. Sun is an amenity and a cordial, but does not directly contribute much to the cure. At Davos the patients do as well in the darker as in brighter winters. Gabrilowitch, at Halila, compared the reports for the winter six months with those of the summer six months, and found that the winter patients did considerably better than the summer patients, the bracing air of winter, in spite of less light, being more restorative. For the most general terms in which climatic conditions can be put is that the coldest air which the individual can tolerate, if it be dry, clear, and still, is the best, as it calls for more food and thus stimulates the appetite. But in an air so cold as to be very stimulating to a patient of 35 years of age, a patient of 55 years of age would shrivel up. Thus it is for the younger patients of fair vigour that the high Alpine airs are the best; say for vigorous persons under 40 or 45 years of age without much bronchial irritation. At Davos it is wonderful to see a wan listless youth for the first few days picking daintily at his half-eaten meals, and 10 days later devouring all before him. At lower altitudes some urgent feeding may be needed, but in any fresh open air a naturally good feeder soon regains appetite; and to force him before nature calls is too often to lose a week or two in an attack of indigestion. In England, Norfolk, Suffolk, and Kent offer the best climates for the phthisical. A poor eater does badly in any climate and under any stuffing. Appetite again much depends upon the preparation of the food, especially among the wealthier classes. The meals, even in the more luxurious sanatoriums, are too often badly cooked and badly served, good as the raw materials usually are. The dishes and plates are cold, the meats are tepid, and the coffee and tea are scarcely fit to drink. All bread, rolls, and cakes should be baked in the house. A variety of dishes, again, as city diners know, tempts to repletion; yet sanatorium cooks do not stand alone in their contentment with a narrow round of menus, which, attractive enough at first, begin, perhaps after a week or two, to pall upon the palate. The physician of a sanatorium should be something of a cook and much of a gourmet.

For the encouragement of scientific work in sanatoriums, which in the nature of the case are far from the advantages of large towns, there should be central committees. Such a committee in England—let us say a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis—would organise the methods of reporting, would suggest the kind of information needed, would circulate scientific results among these institutions, and would point out the many directions in which investigation is needed. Excellent work of this kind is now done in a few sanatoriums, but there is a fear lest the medical officers should fall into the supine routine of too many of the asylums for the insane. Or, again, work may be active but ill-directed. Every sanatorium deserving the name has its laboratory; but how much valuable time is wasted in the counting of bacilli? Such computations are necessary from time to time, no doubt; but daily or even weekly fluctuations are too dependent on temporary contingencies to be worth much, and there are more important things to be done. For instance, I may suggest examinations of the blood, the comparison of its cells, and of the fluctuations of its specific gravity; the study of its sera for agglutination, toxins and antidotes, and their relation to the tuberculins; the attenuations of virus by inoculation and other methods; the estimation of the virulence rather than of the number of bacilli in the sputa; the evidences of mixed infections such as cocci in the blood; the investigation of the possible harm of re-infection by tubercle, as, for example, by soiled fingers, tooth-brush, or swallowed sputum; the secretions of the stomach at various phases of digestion; examinations of the urine for toxins, for the comparison of ingestion and excretion, for the influence of fever and of exercise on metabolism; and so forth, *ad infinitum*. Many a worker on such subjects in a remote sanatorium would feel the moral tonic of the help and association of a central scientific committee. Again, in all public or semi-public institutions there should be a bench in the laboratory where any pathologist, neighbour or visitor, could avail himself of the material either for research or for self-improvement. I attach importance also to the establishment of some connexion between the district medical officers of health and the sanatoriums; but this is a long story.

I am guilty of no extravagance when I suggest that one-third of you who hear me, wittingly or unwittingly, are, or have been, infected with tubercle. Some of us, ailing indefinitely, may have been the innocent means of infection to others, so secretly stalks infection in our midst. Every trustworthy report from sanatoriums—and herein I must compliment our colleagues of Germany on such reports, the last in my hands, and this not the least, being that from the sanatoriums of the Hanse Towns—every such report, I say, emphasises anew the remarkable success of Brehmer's system, on one condition—namely, that the patient be caught at the outset of his disease. Happily for me, it is not within the sphere of this paper to ask what provision is to be made for advanced cases, whether for their own comfort or for the safety of the public, this is a matter of State Medicine; but it is my duty to reinforce your demand that advanced cases, save in a few overwhelming infections, shall cease to occur. There has been much supineness in the matter of early diagnosis—a supineness bred of pessimism, of despair; let us bring the inspiring message of optimism, of

enthusiasm. Let every physician, however modest his sphere, remember that upon his alertness depend the lives of the infected and the stamping-out of infection. The incipient case of to-day is the advanced case of to-morrow. On former occasions I have said that a case presenting the ordinary first stage symptoms of the out-patient room, if for our fathers an incipient case, is in our eyes an advanced case; yet too often still the family practitioner waits till the physical signs are evident to a second year's student. What consultant has not felt his heart sink as, in the so-called incipient case, the "consonating râle" fell upon his ear? Medical men who have no ear for music ought to distrust themselves a little in auscultation. Not long ago a physician, as honest as he is accomplished, told me that he could not perceive a difference of percussion which I estimated at quite a quarter of a note; he lamented his lack of an ear for music. Early diagnosis depends, however, less upon this detail or that, more upon the cumulative evidence of many indications which the family physician is in the best position to appreciate. The features of the individual do not carry much weight with me, excepting, of course, such acquired features as scars in the neck, or the thick nostrils and upper lip due to the catarrhs of childhood. Many persons of so-called tuberculous aspect never fall victims to the bacillus; many of robust appearance are attacked. Never let muscular strength, ruddy cheeks, or a well-formed chest blind us to canker within.

Whosoever complains of being overwrought, of being "off colour," as the phrase goes, in him suspect phthisis, cough or no cough. Let no hæmoptysis, however slight, be set down to a "blood-vessel in the throat"; let no pleurisy, however long ago, be forgotten. In examining the sputum, if any there be, we shall not take the absence of bacilli as an assurance of safety. In young children we may find some occasion of examining vomit for bacilli. If there be no fever, a high mean pulse-rate with low arterial pressure will keep us on the watch, especially if therewith there be some loss of weight, an unusual tendency to sweat and languor after exertion. Indeed, we shall not admit the absence of fever until we have taken the temperature in the rectum every two hours of the 12 of the day, and particularly after exercise. To anæmia, to dyspepsia, to vague pains in the chest, if we shall not give more than their due weight, we must not give anything less. Percussion, which must be made on the bare chest of the patient, sitting on a wooden chair without cushion, must be made with a light finger, and the notes must be estimated not so much by absolute pitch as by an attentive comparison of the two sides. Even if both apices be affected the notes of the two are never identical. I would ask you if comparison of the percussion notes in respiration and in expiration is of importance? The larynx should always be examined, if only for loss of colour. The Roentgen rays, so anxiously tested by Dr. Walsham and others, have not yet proved to be of use in doubtful cases. The spirometer, valuable for comparative records in the various stages of a patient under treatment, is of no use in early diagnosis. Attempts to plot out curves of fever characteristic of tubercle or mixed infections seem not yet to have met with much clinical success. Of tuberculin in diagnosis I have had little experience; in one case, however, it was a great help to me; yet tubercle sleeping in many of us, if not by its use awakened for mischief, might give some ominous answer in its dreams.

The next question I would submit for consideration is that of the mean duration of residence in the sanatorium. The degrees of cure are three—namely, arrest, obsolescence, and *restitutio ad integrum*. To consider this last is to be too curious. Nay, even if we make obsolescence our term for discharge we shall nip sanatorium treatment in the bud, at any rate for the poorer classes. To bring about obsolescence of phthisis, even of the first stage, we need, in my opinion, two winters and one summer at least—say, 18 months—and in saying this I am astonished at my own moderation. In many cases three winters and two summers will be needed. But how many, even in the easier classes, can sacrifice this time without breaking up their careers and abandoning the ties of home? Such, nevertheless, is the advice which for many years I have had to offer to those who have consulted me; and this opinion I must still give if we are to be satisfied with nothing short of obsolescence. But during the last few years, during which time statistics, such as those of Dr. Turban and of Dr. Trudeau, have been given to the world, since we have had to reckon with what is practically possible in the provision of sanatorium accommodation, and to consider if it be worth while to spend money on a vast scale for cures beyond our compass, my own views have undergone a change. Herein I have been much impressed by the distinction which our German colleagues have drawn between "*wirtschaftliche Heilung und wissenschaftliche Heilung*";—as we may express it in English, between a pathological cure and an economical cure. What is meant by a pathological cure we know, as we know also that the means of such cures are unattainable save by persons of wealth and leisure, and not by all even of these. Keeping our minds fixed upon the first stage—for we will not admit that physicians will continue to let cases drift into the second without sanatorium treatment—it appears that after a certain time patients may be allowed to return to clean homes and wholesome occupations so far improved, and, what is quite as important, so deeply imbued with sanatorium methods, that most of them will hold their ground for some years, and many will ultimately recover. To fix a term for the individual case is, of course, impossible; but, now that large numbers have been dealt with, a mean term may fairly be demanded of us by the paymasters of these resorts. Some sanatoriums put the mean term at three months, which seems to me too sanguine; others put it at six months.

When we try to apply some general rule to the individual case, to estimate for the patient and his friends how far he will fall within the mean or without it, we must be guided by certain individual features. For instance, if fever continue after the first 10 or 14 days the mean duration of residence will be exceeded. How long may fever continue, and yet the patient do well? In view even of an extreme term, is it any use keeping a patient in the occupation of a bed if the fever has not subsided, say, in four or six months?—for we may have 6 or 8 per cent. of such cases. Rapidity and instability of pulse are adverse symptoms. Sugar or albumin in the urine is, of course, of bad omen. Poor feeders do badly. Topers do badly. Young patients not out of their teens do badly on the whole; and so, again, do patients in the later decades of life. A steady gain of weight is, of course, hopeful, but patients may gain weight while retrogressing in respect of local disease. I have expressed the opinion that tuberculous pedigree does not tell against the case prognosis; but herein Sir William Broadbent differs from me. Pregnancy is, of course, a very unfavourable complication. Gout I regard as a very favourable one. An obedient patient of tranquil temperament has a much better chance than the wayward or fretful. As to physical signs—I have not worked in a sanatorium; but on my fragmentary experience I think that if on admission there were crepitations at one apex these ought to have dried up in a month or six weeks if the patient is to be discharged in three months; at which term the physical signs should have become fairly negative. As to bacilli, these pests seem to persist indefinitely in many patients discharged and otherwise doing well. In bronchiectatic cases, on the other hand, they may not be found. I attach more importance to a diminution of the quantity of the sputum. Upon such data as these I think the chances of the individual case in respect of the mean stay may be calculated, say, after the first month's residence? That the presence of tubercle in other organs is a very grave factor in the prognosis I need not say; cases of slow scrofula with pulmonary complication often indeed do remarkably well, but in most other cases of multiple diseased organs I have had disastrous experience. Multiple deposits in the lungs themselves also in their degree forbid the more sanguine hopes. However, if sometimes we are disappointed by the ill results of a case in which we had looked for better things, on the other hand, it happens, more frequently, I think, that cases in which we had not dared to hope much gratify us by revealing an unexpected power of recovery. Thus the cruel face of Nature may break into a smile.

It is only by means of the kind reception that many sanatorium physicians have given me, and of the free and generous manner in which they have allowed me to share their thoughts, that I shall dare to-day to discuss treatment in sanatoriums. I will begin by quoting the words of him to whom my debt is the greatest—viz., Henry Bennet. In 1866 he wrote of the physicians of his time: "They dare not apply to their patients the ordinary rules of hygiene; they dare not give plenty of animal food; they dare not give fresh cool air day and night; they dare not keep the skin clear and cool by cold or tepid sponging. ..... Their patients when they go to health resorts think they ought to take exercise, and they do so. ..... They think it did them good

when well, and will do so now when they are ill; but they merely walk themselves into the grave." If I quote no more than this, does not that which I have read tell us how enlightened a forerunner was Bennet in the treatment of phthisis? And now we are tending to drop into the opposite routine of idleness and stuffing. So hard is discrimination. Whatever our treatment, let us first take such order with ourselves that it shall not be treatment of the abstraction Phthisis, but of the individual victim of tubercle bacilli, of which victims no two are identical. Such discrimination means well-paid physicians, and many of them. I repeat, let us not fall into the routine of asylums for the insane, wherein the public authority has always been seeking how far it can reduce the salary for which it can get medical men to apply, and, having got them cheaply, how many patients it can make them attend to. Let not the public act in sanatoriums, as it acts in asylums and hospitals, as if, that is, the public had itself found out how to cure diseases and had engaged a few medical men to carry out its own ideas.

As in other diseases, so in phthisis, the first task in undertaking a cure is to clear up arrears. When the patient comes under care, in most cases at any rate, he has drifted into physiological debt. He has mortgaged his estate, has overdrawn his banking account, has bought raw material at forced prices and paid for it with bills renewable at heavy fines. Our first duty, then, is to straighten the account; and it is astonishing how much is to be done by reducing expenditure, by husbanding profits, and by clearing off arrears. Every patient, febrile or not, should rest for ten days or so until the physician can reckon up the balances. And let it not be forgotten that the stomach, indispensable as it is, indeed, because of its indispensability, needs rest too—that is to say, it must be nursed. To thrust a heap of food into the stomach of a worn or exhausted human machine is to court failure; fortunately, such is the tolerance of the human body the patient is often quit of such an error for 10 days' indigestion and "biliousness," when the food has to be moderated after all. Now I do not often read in the reports of cases, amid their long lists of physical examinations, records of the dimensions of the stomach before and after meals, which I regard as one of the most important of these examinations. In weak and febrile patients the walls of the stomach are almost always lax, so that the food is delayed in the viscus, and tends to ferment there; especially if the secretions of the peptic glands are attenuated; under the internal pressure the organ gives way more and more, and may not recover itself in the hours of emptiness, or indeed, if feeding by frequent snacks is advised, may never become empty. Not long ago I saw such a patient, stuffed on the most modern principles; his medical attendant was annoyed that he positively declined to eat, that he was nauseated, and was losing ground rapidly. On examination of the emaciated body we were able not only to map out but even to grasp a large pendant stomach as full of food as a haggis. How long it had been full I do not know. For the first few days let rest be rest all round, stomach included; then, after the varying dimensions of the organ are known, the food may be increased according to the energy of the individual. Another warning I would give is to watch carbohydrates with care. Feeble stomachs digest these materials with less activity, and they tend to generate flatulence. Man at bottom is carnivorous. I think milk is given too profusely. The bulk of liquid has two dangers: first, it impedes digestion by diluting the gastric juice and distending the stomach—at any rate, in non-febrile cases where liquid is not so quickly disposed of; and, secondly, it adds to the mass of the blood which the heart, often ill-nourished, has to lift. For my part, I rarely find the need of forced feeding—now and then a patient is fastidious, but the secret of forcing the food is to put the patient into open air as cool as he can bear it, and if the cook is a good one the appetite in hopeful cases will come back of itself. On my first visit to Davos, when I found myself at table with 30 weather-beaten people eating like wolves, I exclaimed to Ruedi, "But where are your patients?"

Food has two ends to fulfil: to compensate fever, if, that is, fever be present, and to nourish the body. Feverish patients will dispose of more liquid than the non-febrile; and as in them the stomach is usually relaxed the food must be in frequent small quantities. Gabrilowitch, in a series of careful experiments, has shown that in the phthisical, and not in the febrile only, the weight falls with surprising rapidity between meals if these are at too long intervals. This fall he finds best marked at nights between supper and breakfast. It would seem, then, that so long a fast, however wholesome for the sound, is not desirable for the sick. As he epigrammatically puts it, "Irritability and sleeplessness are the hunger of the phthisical." When fever has disappeared, and the patient has regained his normal weight, the physician, by close watching of the scales, will be able to return to ordinary meals at the usual intervals. There are now no more arrears to make up, only the balance of waste to repair.

Of alcohol Bennet well said, "Even when it is prescribed medicinally there is always the risk of abuse. It is a double-edged sword." For a few days, occasionally, when the patient flags, when his skin is cool and damp, when his pulse is feeble, when his digestion is slow, and when after meals he is depressed in spirits, it is helpful; as a rule it is not needed. It is our duty, then, as pathologists, knowing that liquorish habits favour tuberculosis, to discourage the still prevalent notion that without alcohol a sick person can never regain strength. There are many lives to throttle out of this cat yet. All patients, without exception, must rest both before and after meals; the latter they remember, the former, which is at least as important, they are apt to forget. Patients liable to vomit food must take their meals in bed. Exercise may be insufficient; indolence may lead to padding with fat rather than to hard condition. Stalled fat cattle are more subject to tuberculosis than the leaner kine on the hillside. The restoration of the heart degenerated by toxins is to be brought about by regulated exercise, and in no part of the treatment is the discrimination of the sanatorium physician more indispensable. On massage I would invite opinions: in former years when more patients remained under home treatment I thought it very beneficial; since the departure of our patients for the sanatorium I have had little further experience of it. I would ask particularly whether massage is inadmissible during moderate fever?

In the earlier days of Davos hydropathy had some vogue, especially the douche. On these means also I would invite discussion. I have found much good in the wet sheet, and the wet pack may be helpful in fever.

The use of gymnastics in the treatment of phthisis is little understood. That in certain phases of disease of the lungs gymnastics must be inappropriate needs no insistence. For instance, he would be a brave man who ordered lung gymnastics in a case of softening or recent hæmorrhage. In phases of softening, again, the risk of suction of septic matters from one part of a lung into another would forbid all exertion likely to cause forcible inspiration. At high altitudes it would seem that the larger volume of the inspirations promotes insensibly an expansion of the lungs too gradual to bring about this peril. In healing stages, when softening has ceased and the lung is drying and laying down protective fibre, may not gymnastics, under supervision as skilled as for cardiac disease, do much to expand and thus to call into healthy function the parts which the tubercle has spared? I seek the answer from those who are dealing daily with these problems.

To admit that there is no drug endowed with specific virtue in phthisis is not to admit that drugs are never useful. For the most part the open air will reduce fever, will prevent sweats—whether due to fever or debility—will promote appetite, and will calm and fortify the circulation. But it is not to be forgotten that during liberal feeding gentle laxatives, and especially an occasional mild mercurial alterative, prove valuable; that a drop of an arsenical solution may settle an irritable stomach, a few drops of strychnine may brace up a slack one, and so on; but I have no faith in courses of drugs, whether antidotal, tonic, or topical, save, of course, in laryngeal cases, which, as the part can be got at, are to be treated locally from the first.

Finally, I must protest against the emptiness of mind which certain reformers would enforce upon their patients. I feel sure that a lack of tranquil occupations and amusements conduces to introspection, and, moreover, is not without grave peril to the moral life. Most of the patients we have to treat depend for their livelihood upon habits of industry; young folks may be sent to a sanatorium at the very time when the habits of life are forming, and it is deeply to be regretted if to the calamity of tuberculous infection must be added a dissipation of those virtues of energy and method upon which our happiness depends. During phases of bodily incapacity submission to the inevitable takes the form of a duty, unfortunate as the loss

of time may be; but vapid hours and aimless days may break up the hardly won discipline of a careful education, if it do not abandon the thoughts to wantonness. The vacuous looks and aimless wanderings of the patients hanging about the precincts of some sanatoriums have impressed me painfully. Vigorous games are rarely suitable; but surely there are occupations, such as gardening, the fine arts, literature, natural history, and quiet handicrafts, which to those free from fever would be beneficial. Perhaps even the visits of teachers in the arts and sciences would not prove so wildly exciting as to throw the population into a fever.

I will sum up the chief questions which I have propounded.

1. Can mixed infections be recognised from fever curves?

2. Can we distinguish between economical (*wirtschaftliche*) healing and complete (*wissenschaftliche*) healing? if so, what is the mean term of residence for the economical healing of early cases?

3. How long in certain active cases, say from 6 to 8 per cent., is a febrile patient to be kept to bed in the reasonable hope of recovery? For instance, in a public sanatorium are we justified in retaining patients who have been confined to bed for six months, five months, or even for four months?

4. What estimates of improvement and what rules of prognosis can be based upon physical signs alone?

5. Is multiple tuberculosis, for instance, in lung and testicle too hopeless a condition for a public sanatorium? How far is it comparable with an equal extent of mischief in one organ?

6. Of what use, if any, is massage?

7. Of what use, if any, is hydrotherapy?

8. Are special pulmonary exercises appropriate at certain stages of progress? and if so, when, and under what conditions?

9. Must we repair the body at the expense of the life of the mind? Can we not give even some educational value to the sanatorium besides the medical drill of it?

A FURTHER CONTRIBUTION ON ACUTE DILATATION OF THE STOMACH,

WITH AN ACCOUNT OF TWO ADDITIONAL CASES.

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AND
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WE have been led by the perusal of a paper on this subject by Dr. Campbell Thomson[1] and the discussions and letters which have recently appeared on the subject to make this addition to a paper published by us in the Transactions of the Clinical Society of London in 1898. In this paper we tabulated and briefly abstracted 16 cases of this rare and fatal condition and reported two new cases, one by the courtesy of Mr. Walter Edmunds and one which had come under our own observation. Since the paper was published other cases with quite typical symptoms and running fatal courses have been recorded by W. H. Brown,[2] Kirsch,[3] and T. B. Appel.[4] Abstracts of these cases may be found in the *Medical Review* of the same year, with a reference to a case published by Fenger.[5] These and additional cases are also given in Mayo Robson and Moynihan's work on Diseases of the Stomach. An attempt was also made to collect cases of the same disease which did not prove fatal. This was difficult, but we found and abstracted the accounts of five cases which appeared to be instances of the disease in question. Care was taken to exclude all cases in which mechanical obstruction at the pylorus was present. Although it appeared to us at the time that the same train of symptoms might follow in cases of this kind, yet we felt that in discussing the cause, symptoms, and diagnosis of the disease it was better to deal with uncomplicated cases only. The two additional cases which we wish to record are as follows.

[1] THE LANCET, Oct. 26th, 1901, p. 1115.
[2] THE LANCET, Oct. 14th, 1899, p. 1017.
[3] Deutsche Medicinische Wochenschrift, August 17th, 1899.
[4] Philadelphia Medical Journal, August 12th, 1899.
[5] Clinical Review, 1898.

CASE 1. *Lacerated wound of the knee-joint; cellulitis of the leg and thigh; ultimate amputation of the limb; acute dilatation of the stomach and of part of the duodenum.*—The patient, a male, aged 29 years, came under observation in 1900 with a lacerated wound of the left knee, opening the joint. A large amount of grit was ground into the wound. The injury was the result of a railway crush, the patient attempting to enter a train in motion and his leg being dragged between the footboard and the platform. The joint wound gave considerable trouble, pockets of pus forming both above and below the joint. Later an arthrectomy was performed and ultimately, on account of severe and repeated hæmorrhage, it became necessary to amputate the thigh. This was about a month after the accident. The patient at the time was extremely collapsed and hardly responded to intravenous infusion of saline fluid, or to brandy or strychnine injections. The bowels were not confined but there was no marked diarrhœa. Unfortunately, no note was made as to the presence or absence of vomiting.

The post-mortem examination was made 17½ hours after death. The only marked visceral abnormality was the condition of the stomach and duodenum. The stomach was dilated and was very prominent. Its upper border was not displaced. Its lower border extended well below the umbilicus. The dilatation was *not* confined to the stomach, for the first part of the duodenum was dilated to twice its normal size. The dilatation extended to the place where the duodenum came in front of the lumbar spine. The stomach contained a little fluid and some odourless gas.

CASE 2. *Pleuro-pneumonia with severe toxic symptoms; acute dilatation of the stomach and duodenum.*—The patient, a man, aged 24 years, had previously had no serious illness and came of a healthy family. On May 27th, 1901, after playing cricket, he shivered and shortly afterwards noticed a pain in his left side which caused a "catch" on breathing. On the third day of the illness he was admitted to St. Thomas's Hospital, evidently very ill and with a temperature of 104° F. Over the lower lobe of the left lung percussion resonance and vocal fremitus were diminished, the breath sounds were very feeble, and a few crepitant sounds were audible. The abdomen was not distended, the abdominal respiratory movements were present, and the abdominal viscera were apparently normal. On the fourth day of the illness the temperature suddenly fell to 96°, but it rose again the same evening to 102°, and steadily mounted from that time until death when it reached 104°. In addition to the signs mentioned at the base of the left lung, a patch of faint tubular breathing developed in the left scapular region and rhonchi and moist sounds were present over the other parts of the lungs. Profuse and uncontrollable diarrhœa now set in, the bowels acting 15 times on the eighth, five times on the ninth, and 11 times on the tenth day of the disease. The patient was sleepless, complained of severe epigastric pain, and commenced to vomit. He was so collapsed that saline fluid was injected into the subcutaneous tissues, brandy being administered freely and strychnine being injected. Death occurred 11 days from the commencement of the disease. Up to the day before death the urine contained no albumin. No urine measurement was made.

At the post-mortem examination the body was found to be emaciated, the trachea and bronchi contained a large quantity of tenacious mucus, the bronchial glands were swollen, and the left lung was completely pneumonic, the lower lobe being grey and œdematous whilst the upper was still red. The visceral pleura was covered with a thick fibrinous pellicle. The lower lobe of the right lung showed patchy grey hepatisation; the other lobes were congested and œdematous. There was a fibrinous pellicle on the pleural surface of the lower lobe of this side. The heart was not dilated; the cavities of the right side contained tough fibrinous clot, which extended from the auricle to the commencement of the pulmonary artery. There was no endocarditis and no excess of pericardial fluid. The parietal pericardium, however, was thickened and adherent to the superjacent pleura of the left side. The adhesions were recent and "buttery." Inflammation had not spread to the interior of the pericardial sac. The stomach was greatly distended. It lay with its long axis directed downwards and to the right. The lowest part of the viscus was within a few inches of the pylorus and reached the level of a line joining the anterior superior iliac spines. The lesser curvature, after emerging from beneath the liver, ran almost vertically downwards to a point on the right of the mid-line on

a level with the umbilicus, then becoming sharply recurved and ascending to the pylorus. The distension *was not* limited to the stomach but involved also the whole of the duodenum, stopping short near the jejunum. The interior of the stomach showed no gross disease; its contents were partly fluid and partly gaseous. The intestines below the duodenum were partially collapsed. The liver appeared to be fatty, the spleen was firm and slightly enlarged, and the kidneys were somewhat swollen, probably as the result of tubal changes. The portal and biliary systems were natural. There was no peritonitis. (For the clinical notes of this case we are indebted to the courtesy of Dr. Hector Mackenzie.)

In our previous paper we particularly drew attention to the fact that the dilatation was not necessarily limited to the stomach but in four of the cases involved the duodenum as well, and in one of these four the first part of the jejunum was said to be also dilated. In both the cases we now record the duodenum was dilated, in one a part and in the other practically the whole of the duodenum being involved. In one of the cases lately recorded by Dr. Campbell Thomson a similar condition of affairs was noted. In the face of this evidence it seems impossible to maintain any longer, as some apparently still do, that the dilatation is due to pyloric spasm. The presence of bile in the stomach contents is additional evidence against spasm of the outlet of the stomach.

One point was very noticeable at the operation on our previous and first case: it was that the stomach was so tensely distended that it actually emitted a musical sound when an attempt was made to pick up its wall. Now it is impossible to believe that a paralytically distended viscus could be placed in a condition of tension so great as this without some mechanical obstructive factor. The question is, How is the obstruction produced? So far as we can gather from literature the advocates of mechanical obstruction of the duodenum incline to one of two views—either the duodenum is kinked by depression of the distended stomach or it is compressed by the root of the mesentery and superior mesenteric vessels which cross it. The advocates of the latter view postulate a *primary* collapse of the intestine and prolapse of the empty coils, such as to cause dragging on the root of the mesentery and superior mesenteric vessels.

We have found by actual experiment on the cadaver that the stomach can be enormously distended by water pressure, with the jejunum cut right across and lying patent in the abdomen. Moreover, the stomach remains thus distended. The same result can be attained after the superior mesenteric vessels and the peritoneal folds in their neighbourhood have all been divided. If, however, by introduction of the finger well behind the distended stomach a little to the left of the mid-line of the spinal column the fundus and posterior wall of the stomach be gently raised the excess of fluid will at once flow freely away from the stomach through the cut jejunum. If the part of the duodenum which lies on the right side of the spine, behind the peritoneum, be first incised, the tense distension of the stomach cannot be produced. We therefore feel justified in assuming that the tense distension is due to actual pressure of the stomach on the part of the duodenum which crosses the third and ascends by the side of the second lumbar vertebra to end in the jejunum.

We would suggest, therefore, that in producing the train of symptoms met with in acute dilatation of the stomach two factors come into play. There is first a paralytic condition of the viscus which leads to distension, and then, at a certain stage the distended stomach actually produces obstruction by pressing on the duodenum on the front and to the left of the spinal column.

The persistence of the vomiting is often held to controvert the idea that the primary lesion is paralytic. It is well to bear in mind the present teaching of physiology on this question. Vomiting may be induced by the injection of tartar emetic into the blood, even after the stomach has been replaced by a bladder, provided that the cardiac orifice has also been removed so that the bladder is actually tied into the œsophagus. If the cardiac orifice be left intact vomiting cannot be induced. Two factors are therefore essential for the production of vomiting: (1) a dilatation of the cardiac orifice and (2) compression of the stomach by the abdominal muscles and diaphragm or in some cases by the diaphragm only. The presence of the power to vomit is not therefore evidence that the stomach is not paralysed.

Acutely distended stomachs usually contain a quantity of gas as well as of bilious fluid. It is quite possible that a large quantity of this usually, but not always, odourless gas is derived from air which is consciously or unconsciously swallowed, and helps to increase the gastric distension. At the same time saliva is also swallowed, the patient's thirst leads him to drink freely, and possibly gastric hypersecretion also comes into play. When vomiting ceases in cases of acute dilatation of the stomach apparently the abdominal distension becomes extreme.

The early diagnosis of the affection is a point of no little importance. Treatment is apparently futile when the distension becomes extreme. It remains to be seen what can be effected by judicious management in the earlier stages of the affection. A consideration of the recorded cases shows that the recognition of the condition is by no means easy. It has been mistaken for (1) intestinal obstruction, (2) perforative peritonitis, (3) perforation of bowel with encysted abscess, (4) pancreatic cyst, (5) uræmia, and (6) post-anæsthetic vomiting. 1. Of obstruction it doubtless is a form, but of obstruction high up, with obtrusive abdominal signs in the form of gastric dilatation. It must be noted, however, that diarrhœa is present and severe in some cases. 2, 3, and 4. The intense abdominal pain which is usually present, the vomiting, the increasing abdominal distension, and the very marked collapse closely mimic general peritonitis. The position of the percussion dulness in the lower part of the abdomen and right iliac region may on a superficial examination appear to confirm this suspicion. The enormously distended stomach has even been mistaken for an encysted abscess. 5. The incessant vomiting, the partial suppression of urine, the occasional albuminuria, the condition of somnolent delirium which may mark the approaching termination, and the "collapse" temperature which is sometimes but not always present, may well give rise to suspicions of uræmia. 6. In those cases which occur after operations there is a great danger of attributing the vomiting to the anæsthetic and the collapse to the operation. Careful examination of the abdomen in these cases is the only safeguard.

In all cases the readiest way to a diagnosis lies in a knowledge of the conditions under which acute dilatation of the stomach is likely to occur and in a careful physical examination of the abdomen with an attempt to elicit the succussion-splash.

We pointed out in our other paper that the gastric dilatation may not at the onset of symptoms assume the extreme degree seen in the later stages of the disease, and that even a day or two may elapse before dilatation is recognised.

It must be borne in mind that the course of the temperature is variable and is largely influenced by the accompanying disease; a "collapse" temperature is not necessarily present.

The general lines of treatment by strychnine injection, stomach lavage, rectal feeding, and intravenous or rectal saline infusion, have been insisted upon again lately. With regard to an attempt to remedy the obstruction by the postural method we can only say that we have not been able to satisfy ourselves that it is successful in the cadaver, even with the abdomen freely opened, so that the stomach might fall forwards easily. It would appear rational, however, to adopt the right-sided or prone position after syphonage. It might be advisable also to try the effect of atropine injection, this method being believed by some to be of utility in the cardio-gastric crises of diphtheria. In these, however, obvious dilatation of the stomach is a very uncommon occurrence. Should operation be determined upon the ideal procedure would certainly appear to be gastro-jejunostomy, as proposed by Mayo Robson in his remarks on the subject.[1]

BRIEF NOTES OF A FEW EXCEPTIONAL CASES OF CATARACT EXTRACTION.

BY CHARLES BELL TAYLOR, M.D. EDIN.,
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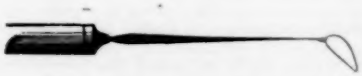
CASE 1.—This patient, from Middlesbro', was born with opacity of the lens in each eye, not the ordinary form of congenital cataract with an opaque centre and clear margin, but with an opacity affecting the lens throughout, slight at first and not sufficient to prevent his learning to read and to write, but gradually increasing

[1] Loc. cit.

until at seven years of age the right eye was quite blind and the left so imperfect that in order to see ever so little he was obliged to hold objects literally in contact with his nose. When I first saw him he had been blind—that is, with only perception of light—for upwards of 35 years in the right eye and the left was not much better, the vitreous was fluid in both eyes, the iris was tremulous, and the lens shared in the general commotion whenever he moved his head. In these circumstances it was clear that any operative procedure would be attended with considerable risk; indeed, he had been treated as an in-patient and as an out-patient at a large ophthalmic hospital and had been strongly advised by one of our most eminent surgeons not to submit to any operation upon his eyes. Nevertheless, as matters were getting worse and he could neither enjoy life nor get his living, I decided to operate upon the right eye; this I did in the usual way, with a small flap upwards, and, contrary to my usual custom, a slight iridectomy. The vitreous drained away the moment the section was completed, the eyeball collapsed, and the lens sank to the bottom of the chamber; I therefore coaxed it out with my wire spoon, an invaluable instrument, since its extreme tenuity enables the operator to assist the exit of the lens without adding to its bulk (see Fig. 1). All went well

FIG. 1.



and the patient recovered without a bad symptom. I therefore repeated the same process on the left eye which also recovered, and this patient now has excellent sight. Here is what he writes on the subject: "I am so thankful to say my eyes are splendid now, I have not had the least pain whatever and can see any distance. I have been taken to church, chapel, and lectures many a time, but never saw the speaker till last Sunday. Things are so different to what I thought they were, it is a new world altogether, oh, dear! after being in darkness for over 37 years and then to recover my sight, I am bewildered and could weep for joy."

CASE 2.—The patient, who was 42 years of age, was struck in the right eye by a piece of steel 15 years ago and the sight of this eye was in consequence completely lost. A year ago the same accident happened to the left eye, and after residence for a month in a large ophthalmic institution he was discharged on the ground, according to his own account, that "it was not possible to do anything for him." The case was certainly complicated and unpromising, but I saw no reason why an attempt should not be made to restore his sight. I therefore operated four times, extracting the lens in each eye and forming an artificial pupil in both. Suffice it to say that he has recovered sight, so good that he is now employed as manager of a large store, a position in which accurate vision both for distance and for near objects is essential.

CASE 3.—The patient, a woman, aged 45 years, lost her right eye 17 years ago from an accidental blow, and recently while nursing a friend's child she contracted purulent ophthalmia, followed by panophthalmitis, shrinkage, and complete loss of the left eye. She had been treated with the utmost care and skill in an ophthalmic institution, and when all hope of restoring sight to the left eye was abandoned she was placed under chloroform with a view to operation upon the right eye, which had been blind so long (17 years). This intention was, however, abandoned by the surgeon at the last moment and on recovery from the anæsthetic sleep she was informed that nothing had been done or would be attempted as the case was hopeless. When I first saw her I found that she was suffering from "cataracta complicata accreta," that the vitreous was fluid, that the iris was tremulous, and that the prospects of restoration of sight by operation were very small indeed. I dared not give an anæsthetic for fear of sickness and excitement, and it was only by a combination of cocaine, holocaine, and what might fairly be called hypnotism that I succeeded in doing a small iridectomy upwards and removing the lens capsule and all entire with iris forceps, leaving a perfectly black pupil, through which she now has excellent vision both for reading and writing and is able to resume her former occupation—that of a teacher of music.

CASE 4.—The patient, a man, aged 74 years, had long suffered from cataract in both eyes; the left had been blind for years and recently the right had become similarly affected. When I first saw him the cataract had been removed from the right eye by a well-known and experienced ophthalmic surgeon, but with unfortunately disastrous results. The patient's son informed me that before the operation he could see to go about with the operated eye, although the left was quite blind, and I naturally asked, "Why did you have an operation on the best eye when the left, blind so long and with everything to gain and nothing to lose, was inviting interference?" To which he replied that the operating surgeon had said "that the reason why he selected the right eye for operation was because he could use his right hand so much better than his left." I mention this merely to call attention to my bent knife, by which the left eye may be operated upon with the right hand with even greater facility than may the right eye. I operated upon this patient's left eye with the knife in question (see Fig. 2),

FIG. 2.

upwards without iridectomy and am thankful to say that he has now a perfect eye and excellent sight both for reading and for distance.

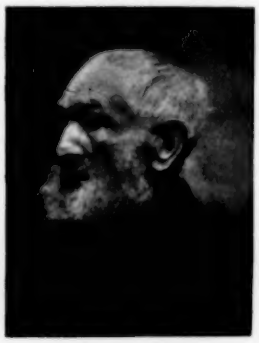
CASE 5.—The patient, who was blind from cataract in both eyes, was first operated on in Australia, the right eye being selected for extraction, an operation which was performed in the usual way upwards with iridectomy. Unfortunately, everything went wrong. The pupil closed, sight was lost (the retina was said to be detached), and the eye remained in a very irritable condition. In these circumstances it was deemed desirable that he should seek advice in the old country, and he accordingly came over and consulted some of our most eminent metropolitan ophthalmic surgeons, with the result that he was advised to submit to extirpation of the right eye before any operation was attempted on the left, and that he should be then safeguarded by a preliminary iridectomy with an interval of weeks or months before the cataract was extracted from the left eye. He did not see his way to fall in with these suggestions, and as the last surgeon whom he had consulted had told him that circumstances were not favourable for operation and that he had better return home he determined to do so, blind as when he came. At this juncture someone sent him to Nottingham. When I first saw him he was accompanied by a gentleman on whom I had operated for cataract some years ago, and as this gentleman was very anxious to get away the same day I operated upon the patient's left eye at once, extracting in the usual way upwards under cocaine and holocaine and without iridectomy. All went well; he had no pain at the time and none after. There was no prolapse of the iris, the pupil was clear, round, central, and moveable, and the eye (a light grey) beautiful to look upon. It is almost needless to add that he recovered most excellent sight both for reading and for distance. The question now arose, what should be done with the right eye? and some of his friends were very anxious that it should be excised before he incurred the risks of a voyage. No doubt this would have been a prudent course, but I never take an eye out if I can help it, and as the patient had good perception of light I performed a large iridectomy downwards, extracted a mass of capsule and punctured the hyaloid fossa, with the result that he has now very useful sight with this eye, being able to go about with his best eye closed and to read large print (double pica) with a glass.

CASE 6.—This patient came under my care in his eighty-sixth year, suffering from asthma, chronic bronchitis, and constant cough. He was blind from cataract in both eyes and had been advised by an ophthalmic surgeon not to submit to extraction. I operated upon the left eye without misadventure and without iridectomy; there was no prolapse and as the pupil was central and moveable I divided a small piece of capsule and sent him home within 14 days. Later the opening in the capsule closed and I therefore extracted it *en masse* with iris forceps. This operation was followed by an attack of acute glaucoma, which was instantly arrested by sclerotomy and puncture of the hyaloid fossa, and he has now excellent sight both for reading and for distance. The case is worthy of record as the patient, who

keeps a public-house, is a life-long abstainer from all alcoholic liquids.

CASE 7.—This patient also was in his eighty-sixth year when he came under my care. He was then suffering from cataract in both eyes, fully formed on the right eye and commencing on the left. I extracted on the right eye without iridectomy, restoring excellent sight. A decade later he expressed a wish to have the left eye operated on, and I repeated the same process without iridectomy on that eye. As he was in his ninety-sixth year I was anxious that he should be exposed to as little risk as possible and therefore treated him in my private hospital and surrounded him with every care

FIG. 3.



and attention. The day after the operation, however, he got up, dressed, and returned home, where there were no facilities for treatment whatever. Nevertheless, he made an excellent recovery without any prolapse of iris and has now in his hundred-and-first year most excellent sight both for reading and for distance. This case is remarkable and I therefore with his permission present your readers with a portrait of the Nottingham centenarian (see Fig. 3).

Nottingham.

THE TREATMENT OF OZÆNA BY CUPRIC ELECTROLYSIS.

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IT is probable that of all the nasal diseases which, by a somewhat haphazard nomenclature, have been loosely labeled "ozæna," fœtid atrophic rhinitis is the one for which the term has most frequently been used as a synonym. When employed in this specific sense it is understood to indicate a disease characterised by a chronic course, by atrophy of the nasal mucosa and sometimes of the osseous structures of the turbinateds and by the formation of fœtid crusts, and all this without definite discoverable cause.

Until within recent years the treatment of this malady was largely confined to dealing with the troublesome symptoms associated with the disease. It was found that by continued local measures the formation of crusts and the intense fœtor could to a large extent be kept in abeyance; and inasmuch as these two disabilities when unchecked were almost as potent to banish the victim from society as was the power given by Kleisthenes to the Athenians, it must be admitted that this was something gained. For a long period, however, no noteworthy advance was made, and although remedies which were said to have healing properties were from time to time suggested it was not until the year 1892 that Jouslain[1] proposed the method of cupric interstitial electrolysis which up to the present date appears to have progressed farthest in the direction of cure. Cheval described the procedure in 1895 and asserted that he had obtained 90 per cent. of cures, the majority of these after a single *séance*, but a committee appointed to investigate the matter by the Society of Belgian Laryngologists and Otologists, to whom he had communicated his paper, were far from being able to share his optimism. Bayer,[2] Brindel, Gouguenheim and Lombard,[3] and McBride[4] have all given their experiences of cupric electrolysis, and to the article by the last-named author I am much indebted.

I have had the opportunity of testing the efficacy of this treatment in 15 cases and the details of the method as employed are briefly as follows. The nasal cavities were first thoroughly cleansed by a warm alkaline and antiseptic douche. Cocaine was then applied to the nasal cavity to be treated, and after a few minutes the parts were dried and the electrolysis needles inserted. The copper needle, attached to the positive pole, was passed into the inferior or middle turbinal, usually the former, and the steel needle into the septum. The strength of the current varied, but it was found that from three to 10 milliampères were the most suitable intensities, although currents as strong as 20 milliampères were on a few occasions used. As a general rule, the current was allowed to pass for 10 minutes, and it appeared that no advantage accrued from prolonging the application beyond this period of time. After each *séance* the patient was usually instructed to refrain from syringing the nose until the next examination. The number of applications given depended upon the improvement noted; five *séances* were the maximum.

Although at least one death has been attributed to this treatment I did not myself observe any after-effects which were calculated to give rise to alarm. A patient occasionally complained of slight giddiness and some general disturbance after the application, a few stated that they suffered from neuralgic pains in the teeth and face, and one patient reported that there was some swelling of the face. Two children (aged 11 years and 14 years respectively) each developed a small perforation in the septum as one of the results of the treatment, but in neither case did the event give rise to any permanent inconvenience. With currents ranging from 5 to 10 milliampères there was considerable discomfort and the cocaine appeared to act only in reducing the amount of pain caused by the insertion of the needle; there was, however, a tendency for the unpleasant sensations caused by the passage of the current to become lessened in the course of a few minutes. In analysing my own observations I have divided the cases into (1) those in which the patients were cured; (2) those in which the patients were much improved; (3) those in which the patients were temporarily improved but relapsed; and (4) those in which the patients were not improved.

1. *Cases in which the patients were cured.*—These were two in number.

CASE 1.—The patient was a female, aged 38 years. There was a history of marked crusting and offensiveness for at least 15 years. Examination revealed considerable atrophy of the turbinals and marked crust formation. The patient was given two applications of electrolysis (one in each nostril) at the Manchester Throat Hospital in October, 1899. Since that time she has presented herself at intervals for re-examination and was last seen in October, 1901, but no crust or odour could be detected. She has therefore been free for two years. The patient thinks that her sense of smell has slightly returned.

CASE 2.—The patient was a female, aged 20 years. There was a history of considerable nasal discharge and crusting for several years. Fœtor had been marked for at least 12 months. The patient was given two applications in December, 1900. She had not syringed since that date and had not been troubled with fœtor or crusting. Now (October, 1901) the nasal cavities are quite free from crusts or odour, although the atrophy of the turbinals persists. She has therefore been free from symptoms for 10 months.

2. *Cases in which the patients were much improved.*—These cases amounted to five, all of whom with one exception (Case 3) were seen in October, 1901, and the reports were made at that date.

CASE 3.—The patient, a female, aged 26 years, came under treatment 18 months ago. When she was last seen she reported that she had had to syringe about four times in three months (as compared with twice daily before treatment). She had been much bothered with crusts in the naso-pharynx; when last seen, however, there was practically

[1] Moure: Bulletin de la Société Française d'Otologie &c., tome xiii., p. 1.

[2] Revue Hebdomadaire de Laryngologie, Mai, 1896.
[3] Annales des Maladies de l'Oreille, November, 1898.
[4] Edinburgh Medical Journal, March, 1899.

no crusting in the nose, but there was marked pharyngitis sicca. The fœtor was very much less; it was, indeed, often absent.

CASE 4.—The patient was a girl, aged 11 years. She had been under treatment about 12 months before. At present she has to syringe her nose two or three times in three months, as compared with daily syringing before treatment. There is said to be now no crusting, but there is slight occasional offensiveness, on account of which the patient still syringes.

CASE 5.—The patient was a girl, aged 17 years. She had been under treatment two and a half months before; there had been no syringing since that time. The nares are at present free from crusts or odour, but there is a small, white, and non-offensive crust on the right side. Although she has been free for two and a half months the treatment is too recent for the case to be fairly considered a cure.

CASE 6.—The patient was a female, aged 23 years. No crusts or odour could be detected, although the syringe had not been used since treatment, two months previously; but the patient states that some crusts of moderate size have been expelled and that slight offensiveness has occasionally been noted.

CASE 7.—The patient was a female, aged 21 years, in whom the last application had been made three weeks before. There had been no crusting or fœtor up to the date of the re-examination, but she is still under observation. This case is so recent that it is perhaps hardly fair to include it.

3. *Cases in which the patients were temporarily improved.*—These cases amounted to six and the patients in all except one reported their condition in October, 1901. Of these the patient in Case 8 has remained free for three months and then relapsed; in Case 9 the patient relapsed after two months; in Case 10 the relapse occurred after several weeks; and in Case 11 after one month. In Case 12 the patient relapsed after 10 days, but she has now only to syringe three times weekly as compared with twice daily before treatment. In Case 13 the patient improved slightly but was lost sight of.

4. *Cases in which the patients were not improved.*—In two cases (Case 14 and Case 15) no improvement was shown; Case 15 was lost sight of after one application.

All the cases were females and in all except one the disease was bilateral. The patients who suffered from marked atrophic pharyngitis gave the most trouble; and it was observed that whilst the treatment applied to one nostril had a beneficial and, so far as could be ascertained, an equal effect on the other, the action of the remedy on the dry naso-pharynx was practically *nil*. The exact means by which the treatment takes effect is still a matter for conjecture. Possibly fœtid atrophic rhinitis is a trophoneurosis which is benefited by the stimulating effect of the electrical current on the part; on the other hand, it may be that the formation of copper salts at the positive pole is the essential factor.

Whilst I am quite convinced of the relative value of this method of treatment my own small experience leads me to be somewhat diffident of concluding that a permanent cure is to be expected in any but a minority of the cases; and a re-examination, after an interval of several months, of a number of patients who were all too prematurely considered to be cured has impressed upon me that freedom from symptoms for one, two, or even three months does not insure that a patient shall be free from relapse. At the same time, the benefits of cupric electrolysis appear to be so far superior to those of other procedures that it may be looked upon as the best remedy that has yet been found; and although for the victims of "ozæna" it will not repair the shrunken turbinals or restore intact the sense of smell, it will, in a certain percentage of cases, so reduce, or even banish, the tendency to fœtid crust-formation that a state of wholesome comfort—the *ultima Thule* of these unfortunate sufferers—is safely reached.

I am much indebted to my colleagues Dr. A. Hodgkinson and Dr. N. C. Haring, and to Dr. H. A. G. Brooke, honorary physician to the Manchester and Salford Hospital for Skin Diseases, for kindly sending me cases suitable for the treatment; and I wish also to express my particular obligation to Mr. A. E. H. Blackburn, of the firm of Mottershead and Co., Manchester, who most courteously rendered me on several occasions generous and valuable help.

Manchester.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PREGNANCY AND LABOUR IN ONE HORN OF A BILOBED UTERUS; PLACENTA PRÆVIA.

BY CLAYTON A. LANE, M.D. LOND.,
CAPTAIN, I.M.S.; RESIDENT SURGEON, EDEN HOSPITAL, CALCUTTA.

A DUTCH woman, aged 25 years, a primipara, was admitted into the Eden Hospital on July 24th, 1901, in labour, giving the history that pains had begun at 4 P.M. on the previous day, the membranes rupturing at the same time. On admission the pains were feeble and the general condition of the patient was good. On examining the abdomen the bulk of the uterine tumour lay to the right of the middline, but just above the pubes; it extended more to the left than to the right. The superficial appearance was one of unusually marked lateral obliquity of the uterus. The position of the child could not be mapped out as the uterus was tenser than usual. The fœtal heart-sounds were audible. The external os was not dilated and the presentation lay above the brim. Under chloroform the os was dilated with Hegar's dilators and Barnes's bags and a marginal placenta prævia was found on the anterior wall. It may at once be stated that this gave rise to no symptoms at any time. Since the os showed a tendency to close a de Ribes's bag was put in and left for an hour. The pains became feeble and the patient was given 10 grains of sulphate of quinine and in half an hour the pains were strong. The bag was removed and the os was found, admitting three fingers, with the left foot lying just above it. This was brought down and the case was left to nature. The pains, however, died away again. She was given 30 grains of chloral hydrate and 30 grains of bromide of potassium at once and half the quantity of each half an hour later, after which she slept for two hours and awoke with strong pains. An hour later, her pulse being 78 and her temperature 98·8° F., the dilatation was found to be unchanged and the protruding leg was blue and swollen. Accordingly, under chloroform the cervix was digitally dilated and the right foot was brought down. After this by slight traction on the legs during the pains the body was delivered to the umbilicus. The child was sitting astride the cord; this was released and the hands, which were not extended beside the head, were brought down. The head was now gripped by the cervix; forceps were rapidly applied and the head was immediately delivered. The cord was twice round the neck. The placenta followed rapidly and some bleeding occurred, which was checked by massaging the uterus and by a hypodermic injection of 10 minims of ergotin. On examining the uterus with a view to giving a uterine douche it was found that the uterine canal bifurcated in the body of the uterus. The right branch was large and was the one in which the pregnancy had occurred; the left one, though much smaller, readily admitted the finger. Bimanually the uterus was found to be bilobed, the right lobe being of the size of a cricket-ball and the left considerably smaller. The right half of the uterus was douched out. The perineum was torn about an inch; its mucous membrane was sutured with a continuous catgut suture and the skin with silkworm-gut sutures. The child was born asphyxiated and revived with difficulty. The placenta was battledore. The discharge became offensive, though not excessively so, and for this the patient was treated with vaginal douches. Her temperature was as follows: second day, 101°; third day, 101·2°; fourth day, 100°; fifth day, 100°; sixth to eighth days, normal; ninth and tenth days, 104°; eleventh day, 100°; twelfth day, 103°; and subsequently it was normal. On August 13th she was reported to have an offensive discharge, but that removed from the cervix by a swab was sweet. The cervix was split to the fornix on the right side and at this point there was some thickening. The right uterine cornu reached out to the right, extending two inches vertically above the pubes and the inner part of Poupart's ligament. The left cornu lay deeper in the pelvis, was smaller, and was somewhat difficult to feel. The uterus was moveable. On the 18th the thickening beside the cervix on the right side

was replaced by a linear scar. The uterus was less mobile than usual, was bilobed, the right cornu being of about the size of the normal uterus at the same period. The left cornu lay wedged in the pelvis, appearing jammed against the pelvic wall and was seemingly the cause of the want of motility of the organ. The bispinous diameter was nine and a quarter inches and the bisiliac eleven and a half inches. The width of the true pelvis, as estimated by the finger in the vagina, did not appear to be greater than usual.

The chief points of interest in this case seem to be the great reluctance of the cervix to dilate, a well-recognised accompaniment of the condition, and its association with placenta prævia. The condition of bilobed uterus seems to be not very uncommon in Calcutta. I find in a search through the register of this hospital that two women with a similar condition were delivered here in 1898; both cases terminated fatally.

I have to acknowledge the kind permission of Lieutenant-Colonel F. S. Peck, I.M.S., to publish this case.

Calcutta.

A CASE OF THROMBOSIS IN A CYSTIC DILATATION OF THE SAPHENA VEIN.

BY GEORGE A. CLARKSON, F.R.C.S. ENG.

THE patient, a man, aged 51 years, consulted me on Feb. 7th, 1901, on account of pain and swelling of the right leg which had commenced on the previous day. He had never had any trouble of the kind before and had enjoyed excellent health all his life. On examination the inner side of the leg from the knee downwards was rather red, swollen, and very tender on pressure. Over the inner tuberosity of the tibia was a hard, exquisitely tender mass of the size of a large walnut, and at the junction of the middle and lower thirds of the leg was a very much smaller thrombus. The intervening vein was tender and thickened but neither enlarged nor varicose. Overlying the patella was a group of varicose veins quite unaffected. Rest in bed with the leg raised, coupled with hot Goulard fomentations and purgation, soon reduced the inflammation, and at the end of a week the two thrombi alone remained, but little reduced in size. On Feb. 14th, under ether, I made an incision five inches in length over the upper thrombus and dissected out a cyst of the saphena vein of considerable size filled with hard clot. The vein was traced some little distance above and below and was ligatured beyond the limit of the thrombus. The lower thrombus was similarly dealt with through a small incision. The subsequent history of the case was quite uneventful. The wounds healed throughout by first intention and by the middle of March the patient was able to return to his work.

I think that this case exemplifies very well the superiority of this form of treatment over that by prolonged rest, which is more commonly pursued, for the following reasons. 1. The patient is effectually relieved from the risk of any dislodgement of clot with its accompanying dangers. 2. It prevents extension of the clot to the deeper veins and main venous trunks. 3. It reduces the necessary rest in bed to a minimum. 4. It leaves the patient afterwards less liable to a second attack. 5. It relieves the surgeon of the difficult task of deciding when, without incurring undue risk, the patient may begin to use the limb.

Leicester.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (ALBANY MEMORIAL).—The report of the Board of Management for the year ending December, 1900, states that notwithstanding the untoward circumstances of the year no diminution of the hospital's beneficent operations has come about. The full number of beds has been maintained, while the average in occupation has been larger than at any previous time. The total number of in-patients during 1900 was 895, the average number of beds occupied was 183, and the average stay of each patient was 75 days. The cost of each occupied bed was £81 6*s.* 2*d.*, which shows a serious addition to the figures of the previous year (£76 19*s.* 5*d.*). The out-patients under treatment numbered 5959, who gave a total attendance of 36,641. The receipts from all sources amounted to £15,843 19*s.* 6*d.* and the expenditure was £18,193 14*s.* 4*d.*

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

METROPOLITAN HOSPITAL.

A CASE OF ENUCLEATION OF PROSTATIC ADENOMATA.

(Under the care of Mr. HAROLD L. BARNARD.)

MUCH of the difference of opinion which exists as to the desirability of treating enlargement of the prostate by "enucleation" depends on the fact that many fail to recognise that only certain forms of enlarged prostate are suited for the operation—namely, the adenomata. The success following enucleation in suitable cases cannot be surpassed by any other method of treatment. For the notes of the case we are indebted to Mr. J. D. Hartley, house surgeon.

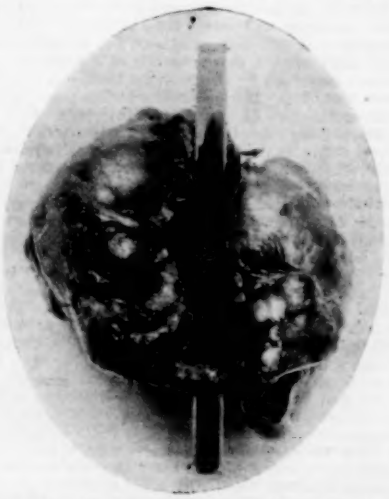
A man, aged 62 years, was admitted into the Metropolitan Hospital on August 14th, 1901, under the care of Mr. Barnard, suffering from enlargement of the prostate. The history was that the patient had had no urinary trouble until five years ago when he had an attack of retention of urine. This was relieved by catheterisation. Subsequently to this on several occasions he suffered from retention, and each time his urine was drawn off by catheter. He passed a quantity of blood with his urine once, three years ago, and during the past year he had frequently passed blood. He had pain on passing urine which was very thick and offensive. The frequency of micturition greatly increased, though he passed but little at a time and the last portion dribbled away. He had great difficulty in starting the stream. The patient was thus suffering from all the troubles incident to enlargement of the prostate and was in such a wretched state that he begged for the operation. He had given up all work and was for the most part confined to his bed.

On admission the urine was found to be alkaline, of specific gravity 1020, full of pus, and of an ammoniacal odour. The residual urine amounted to five ounces. The patient had pain and tenderness in the hypogastric region and in both lumbar regions and down the course of each ureter. By the rectum the prostate was felt to be uniformly enlarged, being of the size of a small orange, and was not tender. The lateral lobes were smooth, rounded, and elastic. A soft, full-sized rubber catheter passed easily into the bladder. The general condition of the patient was fair though his lungs were emphysematous and he had a good deal of bronchitis. He was put on acid sodium phosphate (one drachm to a pint of water) and this he always had by his bedside and drank when he felt so inclined, taking in all about three pints a day. Urotropine was also given in ten-grain doses three times a day. Under this treatment in a week the urine became clear, the pus disappeared, and the smell was lost.

On August 20th an operation was performed by Mr. Barnard, chloroform being administered by Mr. L. Thornley. The bladder was first emptied by a soft rubber catheter and then five ounces of warm boric lotion were injected. An incision two and a half inches long was made in the middle line of the abdomen just above the pubes. When the abdominal wall had been cut through ten ounces more of boric lotion were injected into the bladder and the latter was incised and each margin of the opening was caught up with pressure forceps. The opening in the bladder was enlarged by means of a blunt-pointed bistoury and a pair of vulsellum forceps was passed in. The right lateral lobe was caught and pulled up into the wound. The prostate was then thoroughly explored by the finger; the two lateral lobes projected into the bladder as rounded egg-shaped masses, whilst between their posterior extremities was a pedunculated middle lobe of the size of a walnut. The mucous membrane of the floor of the bladder was incised over the right lobe for about one inch and the forefinger of the left hand was passed into the opening thus made and the growth

was gradually scooped out. Two fingers of the right hand were passed into the rectum in order to keep the prostate up in the wound. After the right lobe had been freed the finger was worked across the middle line and the left lateral lobe was shelled out without further incision. The middle lobe came away with the right lateral lobe. There was a considerable amount of hæmorrhage during the progress of the operation and at the conclusion the bladder was irrigated with equal parts of hazeline and water, thus restraining the bleeding. A long rubber tube bent double with a hole cut at the angle was inserted into the bladder and was stitched to the skin: another suture brought the upper part of the incision together, the lower part being left entirely open. The bladder wall was not sutured, neither was the bladder sutured to the abdominal wall. The wound was dressed with sterilised gauze and wool.

The patient stood the operation well. Four hours later he was dressed. The dressings were soaked through with blood and urine; he had also passed blood and urine per urethram. His bladder was irrigated with warm boric lotion twice a day until the tube was removed. The lotion flowed down one side of the double tube into the bladder and then out through the other limb of the tube. Later he was irrigated through a catheter passed down the urethra. His bronchitis made it necessary to sit him up in bed as soon as he came round from the anæsthetic. His recovery was uneventful; the tube was removed a week after the operation. He was out



Figure, rather less than actual size, showing adenomatous mass enucleated. The glass rod marks the position of urethra and sphincter vesicæ. The adenomatous ring is thin in front but thick behind, where it projected upwards as a middle lobe.

of bed in a chair nine days after the operation and a fortnight after the operation he passed urine from the urethra at will. Three weeks from the operation the suprapubic wound closed and urine passed quite naturally and was sweet and clear; he could hold his urine from three to four hours at a time. He passed it without delay with a good stream and he could project it a good distance. On examination by the rectum the prostate was found to be normal in size and a median cleft could be felt. The part removed (see figure) weighed two and a half ounces and microscopical section showed it to be in structure a simple adenomatous growth.

Remarks by Mr. BARNARD.—I do not propose to take any part in the battle for priority which has been raging in another journal. I may, however, state that I was led to operate by the enthusiastic description of Mr. P. J. Freyer and after seeing one of his cases and examining figures of his specimens. In operating I followed as closely as may be the method described in his paper[1] and found it a faithful guide, except perhaps in the matter of hæmorrhage, for my patient lost from 15 to 20 ounces of blood whilst he was on the table and perhaps another 10 ounces or so the same night. The hæmorrhage was not alarming but it was not insignificant.

There is no doubt that by the method described above the obstructing tumour, which is after all the practical prostate, may be entirely removed, but I do not believe that the anatomical theoretical prostate can be so extirpated. Recently I enucleated a thyroid adenoma of the size of a child's kidney from the right lobe of the thyroid gland. The gaping cavity left was inclosed by the merest shell of thyroid tissue and capsule, which could be seen by the eye but could not have been identified by the finger tip had it been out of sight at the base of the bladder and bathed in blood. So I believe the adenomatous tissue of the prostate is enucleated from the muscular and fibrous capsule and stroma, leaving the urethra and even ejaculatory ducts intact, and probably also the normal glandular tissue thinned out by expansion to a mere membrane. Such an enucleation can be carried out with ease on the cadaver and in this case there is no doubt that the capsule of the gland is left behind. If the plane of cleavage were between the fibrous capsule of the gland and its fascial sheath it would pass through the prostatic plexus and very severe hæmorrhage would be produced, whereas the loss of blood has not been considerable in any reported case of this operation. Moreover, since the urethra and ejaculatory ducts pierce the capsule as they enter and leave the gland, these structures would of necessity be removed with it, and this is not so. In the case reported above the tumour formed a complete collar round the urethra. This collar was broken through in front so as to produce a free end and was then unwound as it was enucleated from around the urethra, leaving that structure isolated in the cavity. The groove of the urethra is clearly seen on the inner surface of the ring of adenomatous material. Another argument in favour of the fibrous capsule of the gland having been left behind is supplied by the fact that my patient had, a month after the operation, as felt per rectum, a normally-shaped prostate which was, however, much smaller than it had been before and was doughy, as though formed of immature fibrous tissue. I have little doubt that as time goes on this will contract.

Among the specimens of prostate glands which I have recently examined and dissected was one in which the enlargement was due to fibrous hypertrophy. The stroma was converted into dense fibrous tissue and no amount of violence was sufficient to enucleate the gland from its capsule. I am bound to admit that this prostate, although enlarged, had not obstructed the urethra in any way, but I should be sorry to find myself embarked upon an attempt to enucleate such a prostate with the tip of the index finger *in situ* and during life.[2] I am not aware of the relative numbers of adenomatous and fibrous enlargements of the prostate which obstruct the urethra, but it will be essential before this operation comes into general use to be able to distinguish the one from the other, as can be done in the case of the thyroid gland.

Whether Mr. Freyer really removes the entire anatomical prostate, as he supposes, does not appear to me of so much importance as that he has brought prominently before the profession an operation which promises to be a radical cure for this common and malignant complaint. When the tumour had been enucleated in my case and the tip of the index finger explored the cavity it was abundantly clear that nothing was left of the prostate but an empty shell which was so thin that the fingers in the rectum and bladder appeared perilously close to one another. All other measures appear pitiably palliative when compared with such a result as this: the painful and unsatisfactory catheter life full of awkward limitations, and punctuated with attacks of hæmorrhage, retention, and cystitis. Castration and vasectomy, at one time so promising and hopeful, now appear to alleviate only, leaving the tumour untouched, although the prostate and bladder are less irritable and less subject to attacks of congestion and cystitis. It is a fundamental principle of surgery that when a tumour obstructs a passage the patency of which is essential to the continuance of life that tumour should be removed forthwith; or if this is not possible some short circuit must be established. The latter method is scarcely ever applicable to urinary surgery. When thyroid adenomata press on the trachea or œsophagus the surgeon loses no time but enucleates them or extirpates half

[1] Brit. Med. Jour., July 20th, 1901.

[2] Since the above was written I have attempted to remove another enlarged prostate and found it fibrous. No effort was sufficient to enucleate it and all that could be done was to cut away the obstructing portions of the prostate. The patient is, however, doing well.

of the thyroid gland. When pelvic tumours press upon the rectum, ureters, or urethra it is considered a clear indication that they should be at once removed. By a similar reasoning I believe that in the near future, when adenomatous enlargement of the prostate has once caused urethral obstruction, no time will be wasted whilst the bladder, ureters, and kidneys become dilated, whilst sepsis spreads throughout the urinary tract, and whilst the patient is worn out by pain and hæmorrhage, toxæmia and renal inadequacy; but at once, while he is strong, the entire tumour will be enucleated and the urethra permanently freed from obstruction.

The use of acid sodium phosphate (NaH_2PO_4) in order to render the urine acid was first suggested by Dr. Robert Hutchison who has not, I believe, published his results. This drug is far more efficacious than boric acid or ammonium benzoate. It is best administered as described above, one drachm to a pint of water flavoured according to taste and taken as a beverage during the entire day. In excessive doses it only purges. I can speak very highly of its results in ammoniacal cystitis especially when combined with urotropine.

SUSSEX COUNTY HOSPITAL, BRIGHTON.

THREE CASES OF TRAUMATIC TETANUS RECOVERING UNDER ANTITOXIN.

(Under the care of Dr. E. MACKEY.)

FOR a determination of the exact value of the antitoxin in the treatment of tetanus we need the notes of even more cases than have been already published, and for the purpose of statistics series of cases occurring in the same institution or under the care of the same surgeon are of especial value, for on the one hand the method of treatment is likely to be more uniform, and on the other all the cases which have been under treatment will be considered. For the full value to be obtained from the record of any case of tetanus it is necessary that the following points should be noted. 1. It is always well that the diagnosis of the disease should be confirmed, if possible, by the discovery of the bacillus in the wound. 2. The incubation period should always be stated, for at present this is the most definite guide which we possess for the forming of a prognosis early in the disease. The longer the incubation period the more probable is it that the attack will not be severe. 3. The source of the serum should be mentioned, for at present there is little doubt that there are great differences between the activities of the various sera. 4. The exact doses administered and the time when given should be stated. It must not be forgotten that the use of antitoxin does not render useless the administration of sedatives. These should still be given and will afford much aid in controlling the spasms. The local wound must be rendered thoroughly aseptic, and should this be difficult excision or amputation may be required. The importance of this local treatment is obvious when it is remembered that the bacillus lives only in the wound and does not enter the circulation, its toxins only being absorbed. As to the dose of antitoxin, in most cases from 30 to 100 cubic centimetres or thereabout have been administered, but a case was reported last year[1] in which Dr. Sydney H. Long of Norwich administered 625 cubic centimetres of serum hypodermically and 55 cubic centimetres by the rectum. The patient thus treated recovered. It cannot be laid down at present with any certainty what is the maximum quantity that should be administered, but obviously we should not risk poisoning the patient with the remedy. The following three cases form a series and are carefully recorded; they are therefore of great value in assisting our knowledge of the treatment of this disease. Dr. Mackey is to be congratulated on the recovery of all his three patients, and we shall hope to have reports of any further cases, so that the series may be extended. Moscheowitz[2] considers that the antitoxin treatment has reduced the mortality of tetanus from 90 per cent. to 40 per cent., but most medical men who have examined this question will hesitate to endorse this statement.

CASE 1.—A boy, aged 15 years, a gardener, was admitted into the Sussex County Hospital on Oct. 28th, 1899, having crushed his left little finger between a barrowful of manure and a wall three weeks before. About one week previously (i.e., after an incubation of about a fortnight) he felt backache and difficulty in opening the mouth and had been getting worse daily. On admission he lay extended on his back, which was somewhat rigid and painful; the head was retracted; the face was flushed and sweating, with marked "risus"; the mouth was tightly closed but could be opened sufficiently to drink and to speak. The crushed nail was loose and dirty; it was removed and its bed was cleaned and carbolised. The temperature was 99° F., the pulse was 76, and the respirations were 20. At 8 P.M. 10 cubic centimetres of anti-tetanic serum (which was obtained from the British Institute of Preventive Medicine) were injected, with antiseptic precautions, into the abdominal wall by Mr. A. C. Jordan. On the 29th the patient had dozed or slept with occasional attacks of general spasm and starting and pain in the right hand and back, rigidity, and sweating. He had taken well feeds of milk of from four to five ounces, with egg and two drachms of brandy and also some beef-tea. At 11.30 A.M. 12 cubic centimetres of serum were injected. At night one dose of chloral and bromide was given because of rigidity, pain, and spasm (when a door banged). On the 30th he was no worse. At 11.30 A.M. 12 cubic centimetres of serum were injected. There was no fever. The pulse was good. The bowels were slightly opened. One dose of chloral and bromide was given at night. On the 31st the symptoms continued, but in shorter attacks of rigidity, retraction, sweats, pain in the chest, "phlegm" in the throat, &c. He took the feeds and passed urine freely. At 11 A.M. 13 cubic centimetres of serum were injected. The temperature was 97°. A full dose of chloral and bromide was given at night, but he had a severe attack of rigidity and arching about two hours after. On Nov. 1st there was less "risus" but more frowning. He had bitten his tongue. At 10 A.M. 13 cubic centimetres of serum were injected. Pain in the right side and leg was present. The patient was excited and there was difficulty in feeding. Chloral was required in the morning. The bowels were not opened; compound mixture of senna was given. On the 2nd he held his ground, but he had pain in the left leg. At 11 A.M. 12 cubic centimetres of serum were injected. He required chloral at 2 P.M. and again in the night for pain in the left leg which caused him to cry out. He was quieter afterwards. On the 3rd the patient was better. He could open his mouth and asked questions. There was less rigidity; 10 cubic centimetres of serum were injected. There was occasional spasm. Chloral was given at night only. On the 4th he was distinctly better; 12 cubic centimetres of serum were injected. The bowels were opened. He had one dose of chloral. On the 5th he was progressing favourably, but had pain in the leg, which was relieved by liniment; 11 cubic centimetres of serum were injected and he was given one dose of chloral. The pulse ranged from 80 to 88. For two days he had been free from spasm. An acid and malodorous sweat was present; 11 cubic centimetres of serum were injected. On the 7th a red blush was present over the joints of the shoulder, elbow, and knee, and between the shoulders and on the back. This was irritable till bathed with boric lotion. On the 8th the rash was present also on the abdomen, one patch being much raised, and on the cheeks and the forehead. It had faded on the elbows and had disappeared from the legs. The patient had had a quiet night and could put out his tongue, which was raw. On the 9th the rash had faded. He complained only of sore-throat and some pain in the neck and left leg, and some rigidity of the abdomen. On the 21st the patient sat up and on the 28th he was convalescent. Altogether he had had 10 injections, making a total of 116 cubic centimetres of serum.

CASE 2.—A man, aged 49 years, a bricklayer, was admitted into the Sussex County Hospital on June 29th, 1901, supposed to be suffering from sunstroke; no history of any wound was given. He was said to be a heavy drinker, but he had never been ill till five days before, when he felt pain all over, especially in the shoulders and groin. There was no vomiting but much sweating. He could not now open his mouth wide and his legs were rigidly extended; he could not flex them and movement caused general spasm. The knee-jerks were excessive. The pulse was 112, the temperature ranged from 99° to 100° F., and the respirations were 28. The tongue was furred. He was given castor-oil, and morphia was injected hypodermically. On the 30th the patient had had several attacks of spasm during the night. The back was rigid. (Bromide with phenacetin was given.) He was sweating profusely. The pulse was dicrotic. On July 1st a

[1] Brit. Med. Jour., Nov. 24th, 1900, p. 1495.
[2] Annals of Surgery, October, 1900.

whitlow was found and opened on the finger of the left hand, the result, the patient said, of a splinter from his barrow which pierced his hand three weeks previously (= incubation of about a fortnight). In the evening 10 cubic centimetres of anti-tetanic serum (which was obtained from the Jenner Institute) were injected by the house physician (Mr. P. Foster). The bowels were opened after calomel had been given. On the 2nd there had been much spasm during the night and till 4 A.M., when a further 10 cubic centimetres of serum were injected and the patient became easier. The finger was freely incised and fomented with perchloride of mercury lotion (Mr. A. H. Buck in consultation). 10 cubic centimetres of serum were injected at 10 A.M. and also at 10 P.M. The patient was moved to a special quieter ward. On the 3rd he had passed a good night excepting for three bad spasms. He was now comfortable and could open his mouth better. Ten cubic centimetres of serum were injected at 2 P.M. and eight cubic centimetres were injected at 10 P.M. He had had four severe and eight slight spasms, but he was easier after the injections. He had milk diet with three ounces of brandy in the 24 hours and three doses of bromide and chloral mixture. On the 4th he had passed a fair night, there having been four spasms. Two doses of sedative were given and 11 cubic centimetres of serum were injected at 10 A.M. He was sweating freely and had many severe spasms of the whole body. He was excited even by speaking but between whiles he had been easier. The finger has been frequently fomented and now ached and smarted much. He had taken liquid food and water freely and three doses of sedative were given during the day. Ten cubic centimetres of serum were injected at 10 P.M. On the 5th he had passed a fair night and he was "greatly relieved by the injection." He was given a sedative also at 10 A.M. Six cubic centimetres of serum were injected and again at 10 P.M. He was comfortable all the day. On the 6th he had had a good night as to spasm, but there had been a tendency to collapse. Medicine was omitted. At 10 A.M. five cubic centimetres of serum were injected. He had a good day. Spasms occurred but were slight and were brought on by any disturbance. On the 7th he had passed a fair night, but at 9 A.M. severe spasms commenced, two occurred in succession and in half an hour three more with slighter ones between. At 10 A.M. the medicine was resumed and seven cubic centimetres of serum were injected. Seven severe spasms occurred before 8 P.M. when they were controlled by hypodermic injections of morphia and sedative medicine and eight cubic centimetres of serum. There was a tendency to collapse. The medicine was stopped and the fomentations were continued. On the 8th the patient passed a better night. Five cubic centimetres of serum were injected at 10 A.M. and he passed a very comfortable day. There was an urticarial rash on the abdomen. He had a good night till 5 A.M., when suddenly he woke with severe spasms, followed by 10 other attacks and some collapse and cyanosis. A quarter of a grain of morphia was injected hypodermically and medicine was given. The attacks were controlled and eight cubic centimetres of serum were injected at 10 A.M. on the 9th, after which only one slight spasm occurred and the patient passed a comfortable day. The rash was fading. The temperature ranged from 97° to 98° and the pulse from 100 to 112. The patient passed a good night. On the 10th in the morning at 10 serum (five cubic centimetres) was injected for the last time. The hand was in a bath of biniodide of mercury (1 in 500) for eight hours, but it caused pain and vesication, so boric ointment was substituted. From this date he gradually convalesced, requiring treatment for occasional collapse, but he was discharged quite well on July 31st, having had 16 injections, the total quantity of serum used being 131 cubic centimetres.

CASE 3.—A young man, aged 19 years, a bricklayer, who was employed in the the same works as the patient in Case 2, was admitted to hospital on June 29th, 1901, having run a splinter from the *same barrow* under the finger-nail of the left hand on June 14th. This came out one week later, having caused no pain worthy of notice. On the 24th (i.e., after an incubation of 10 days) he felt tightness across his chest and general spasm, with hardness and contraction of the abdominal muscles, which had since spread to the legs and neck, not much affecting the jaws till the day of admission, when he could not open his mouth well and had risus sardonicus. The tongue was foul, the temperature was 100° F., the pulse was 96, and the respirations were 24. The knee-jerks were exaggerated and a tetanic condition with some opisthotonos was readily induced, accompanied by pain and profuse sweating. On the third finger of the left hand the scar of injury was healed; it was not tender. There were large acne pustules on the forehead. A quarter of a grain of morphia was injected hypodermically and he was given castor oil as well as bromidia at bedtime. On the 30th there was less pain but recurrent spasms were present; 10 grains each of bromide and chloral with five grains of phenacetin were given every six hours. On July 1st there was much groin pain, also retention of urine, requiring the use of the catheter (this and subsequent cystitis were possibly accidental complications from a neglected gleet). Ten cubic centimetres of serum (obtained from the Jenner Institute) were injected by Mr. Foster. During the night spasm was severe and the patient was "light-headed." On the 2nd 10 cubic centimetres of serum were injected at 4 A.M. Later Mr. Buck saw him in consultation. The scar was opened and dressed with carbolic (a mercury-biniode bath was ordered but the hand could not be kept in it); 10 cubic centimetres of serum were injected morning and evening. On the 3rd the spasms, which were better through the day, recurred, with opisthotonos and some pleurosthotonos in the evening; 10 cubic centimetres of serum were injected in the morning and eight cubic centimetres in the evening. Calomel and castor-oil were also given. The patient took liquid food well; only one ounce of brandy was given per diem. On the 4th during the night he had several severe spasms on waking. The tongue was bitten. Eight cubic centimetres of serum were injected in the morning and 10 cubic centimetres at night. The symptoms were less severe during the day, but chest pain and much sweating were present. On the 5th during the night there were much twitching of the hand and choking on swallowing, but these were relieved after the injection of serum, eight cubic centimetres being injected in the morning and six cubic centimetres in the evening. Through the day the patient was sleepy and more comfortable and was able to extend the legs without rigidity and to open the mouth. He had a comfortable night. Five cubic centimetres of serum were injected on the morning of the 6th. On the 7th there had been much pain in the legs during the night. No injection was made on this date; spasms were present, but were slight in character. The bladder symptoms were becoming more troublesome. The urine was ammoniacal with phosphates. On the 8th he was going on well but for "stiffness." From five to 10 grains of urotropine were given in the morning. The finger was still being fomented with antiseptics. Some faintness was experienced on moving. On the 10th slight spasms occurred on any disturbance. Five cubic centimetres of serum were injected. Bromic acne was now extensive on the forehead and the bromide was stopped and the pustules were opened. The bladder was washed out. The stiffness was said to be relieved by the last serum injection. Solid food was taken. The patient got up on the 12th. On the 13th he was better, but some spasm occurred. Five cubic centimetres of serum were injected. The bladder was washed out daily. On the 17th a whitlow on the right hand was opened. On the 19th there was much blood on washing out the bladder. Urotropine had been continued up to this date, but was now omitted. On the 24th the cystitis was better. The urine was acid. The patient was able to walk out. On the 31st he was discharged well, having had 13 injections, 105 cubic centimetres of serum being used.

Remarks by Dr. MACKEY.—The above cases are not selected for publication simply because they recovered: they are all that have come under my care since the antitoxin treatment was established, and I think that their evidence should be added to that which has now accumulated for and against. They may be judged by their incubation period to be of the milder type, but even of such the average mortality has been put at 25 per cent.[1] The impression made on those who watched these cases was of distinct antidotal power exerted by the serum, and although, as noted by others, the spasms seemed to be sometimes increased for a time they were afterwards lessened, and sometimes were relieved markedly and quickly; also, they returned more than once on suspension of the injections and were again mitigated on resuming them. The amount of sedative given was not large and could only be considered as saving fatigue and distress, not as curative; the good nursing and nourishment (of which only brief details are indicated) may be credited with a larger share of the recovery; several times there was imminent danger from collapse.

[1] Humphry and Woodhead, 1896.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Investigations of the Intracellular Constituents of the Typhoid Bacillus.—Hæmolysines of Bacillus Pyocyaneus.—Isotonic Culture Media.—Proteolytic Enzymes of Fibrin.—So-called Mucous Intestinal Cast.—Products of Splenic Proteolysis.—Artificial Preparation of β. Hydroxybutyric Acid of Urine.

A LABORATORY meeting of this society was held on Nov. 5th at the Jenner Institute of Preventive Medicine, Mr. WATSON CHEYNE, the President, being in the chair.

Dr. A. MACFADYEN and Mr. A. ROWLAND communicated a paper on the Investigations of the Intracellular Constituents of the Typhoid Bacillus. They then demonstrated the method of obtaining the intracellular constituent and finally recorded some results already obtained as regard the immunity conferred by injection of the intracellular constituents.

Dr. G. F. PETRIE read a paper on the Hæmolysines of Bacillus Pyocyaneus. He pointed out that results in hæmolytic experiments would be of greater value if a more definite system of examination were carried out. A considerable margin of possible fallacy was presented when the results were positive. With a view to lessening the risks of misinterpreting results it was recommended to use a solution in which the osmotic pressure was greater rather than less than that of the contents of the corpuscles. Again, the use of defibrinated blood was to be deprecated. Absolutely fresh unclotted blood was preferable as liable to introduce less chance of fallacy in the results. Definite percentages of the hæmoglobin to be tested were placed into test-tubes of equal size and equal amounts of blood were added by means of calibrated pipettes.

Dr. A. HARDEN read a paper on Isotonic Culture Media.

Dr. S. G. HEDIN gave a short account of the Proteolytic Enzymes of Fibrin.

Mr. T. B. LEATHES gave an account of the So-called Mucous Intestinal Cast—Mucous Colitis. He said that the casts obtained from cases of Mucous Colitis were not composed of mucin, for they were insoluble in water and in weak alkali. If, however, the cast was treated with an alkali it went into solution. If the cast was left for some days in weak alkaline solution it was dissolved. This solution, however, gave none of the proteid reactions. If the cast was treated with weak acid the solution which resulted would reduce Fehling's solution and therefore it was probable that some glucosin was present. All the evidence seemed to point to the fact that it was not a proteid.—Dr. LESLIE EASTES said that he had investigated several of these cases chemically; he thought that the body was more nearly allied to keratin than to mucin. The cast contained a large number of other cells and leucocytes and these were held together by a mucin-like body. Blood was often present and some of the products gave rise to the chemical tests.—Mr. LEATHES, in reply, said that though the solubility of the substance suggested keratin yet it gave no sulphuretted hydrogen reaction, and therefore he was of the opinion that it was not keratin.

Mr. LEATHES then made a short communication on the Products of Splenic Proteolysis.

Dr. A. MACKENZIE read a paper on the Artificial Preparation of β. Hydroxybutyric Acid of Urine.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—On Oct. 23rd, at the Dispensary, Broad-street, Nottingham, the inaugural address for the winter session of this society was delivered by Dr. Risien Russell on the Value of the Tendon-jerks and Superficial Reflexes in Diagnosis. Dr. Russell first called attention to the value of the plantar reflex and tendo Achillis jerk in diagnosis. The former had received a large amount of attention in this country as well as abroad, but very little attention appeared to have been paid in this country to the state of the tendo Achillis jerk as an aid in diagnosis. After referring to the significance of the alteration of the plantar reflex known as "Babinski's sign" or the "extensor reponse," from the presence of which a lesion of the pyramidal system might be inferred, he pointed to certain fallacies that had to be avoided, and in support of the value of the phenomenon he quoted three cases from among many in which the "extensor response" had been a great help to him in arriving at a correct diagnosis. The state of the tendo Achillis jerk had been regarded as of especial value in the diagnosis of early tabes and in the differential diagnosis of real from hysterical sciatica, and he could confirm the statements that had been made by neurologists on the continent and in America with regard to the significance of alterations of this jerk. It was especially in cases of tabes in which the knee-jerks were still preserved that loss of the tendo Achillis jerk had proved of service in the diagnosis of this disease. In sciatica the tendo Achillis jerk was commonly abolished on the affected side, whereas this was not the case in hysterical sciatica. As an illustration of the way in which the tendon-jerks assisted in the separation of one form of organic disease of the nervous system from another he quoted cases with atrophy of the muscles of the upper limbs in which the state of the tendon-jerks went far to establish a correct diagnosis. This afforded him an opportunity of indicating the significance of the jaw-jerk and of pointing to its value in the differential diagnosis of cases such as those to which he referred. Finally, he dealt with the help to be obtained from the tendon-jerks and superficial reflexes when attempting to localise the exact situation of a lesion of the spinal cord. He also referred to the fact that the state of the tendon-jerks of the lower limbs served to indicate the degree of severity of a lesion of the spinal cord above the level of the lumbar enlargement. In incomplete transverse lesions, such as commonly resulted in myelitis, there was ankle clonus and the knee-jerks were exaggerated, whereas with complete transverse lesions, such as were usually caused by fracture-dislocation of the spinal column, there was no ankle clonus and the knee-jerks were abolished. A satisfactory explanation of why there should be this difference had been supplied by the results of Sherrington's experimental observations, which made it clear that augmentor influences passed from the ponto-cerebellar region to the spinal segments to maintain muscle tonus. Incomplete transverse lesions of the spinal cord, while sufficient to prevent the inhibitory influence of the cerebral centres from reaching the spinal segments, still allowed the augmentor influences to reach them, whereas in complete transverse lesions the augmentor influences were also cut off and the spinal segments in man did not possess sufficient autonomy to be capable of preserving muscle tonus in the absence of the augmentor influences from above. A case had recently been recorded by Mills in which there was ankle clonus while the knee-jerks were absent, a rare event in that only ten similar cases could be collected from the literature on the subject. This indicated a limited lesion in the lumbar cord and one of the affections suggested that might possibly have given rise to this combination was disseminated sclerosis; but highly probable as it seemed, in a large experience of this disease Dr. Russell had only met with two cases in which the diagnosis seemed likely and in which the knee-jerks were absent. He would always hesitate to diagnose disseminated sclerosis in a case in which the knee-jerks were absent, although such a state of things was, of course, possible. The paper was illustrated by lantern slides of the various morbid conditions to which reference was made.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 1st, Dr. A. G. Barrs, the President, being in the chair.—Dr. James Braithwaite read a paper on a Possible Factor in the Causation of Cancer, in which he stated his belief that probably an excess of salt in the diet along with either an unnecessary amount of food, and especially meat, or non-use of the nutrient supplied to the tissues, as in old age and in organs such as the womb and breast, was the cause of cancer. The excess of salt, however, was the necessary factor. This was illustrated by the comparative exemption of certain people and animals. Haviland's map of cancer in England was explained by the diet of the people, which varied with the kind of farming, and the farming with the geology. Cancer houses were also explainable on this hypothesis, which Dr. Braithwaite thought to be contradicted by no known facts about the disease. At the same time, he did not consider the theory proved. It was merely a matter for consideration and experiment.—In the discussion Dr. E. F. Trevelyan said that Dr. Braithwaite had brought forward no

satisfactory evidence to show that salt was in any sense even a contributory factor in the causation of cancer. On the other hand, he thought that more systematised efforts than hitherto should be made in order to throw light on the etiology of this ever-increasing disease. Such an object would, in his opinion, be best promoted by the establishment of a league against cancer which should collect evidence respecting all aspects of the question, indicate the more profitable lines of research, and perhaps provide the necessary means to young workers in this pressing field of investigation.—The President, Mr. P. J. Cammidge, Dr. T. Churton, Mr. J. W. Draper, and Dr. G. E. Young also joined in the discussion, and Dr. Braithwaite replied.—Mr. Lawford Knaggs read a paper on Inflammation in Growing Bone arising from Cartilage. Special attention was directed to the predisposing influence of ligament strain and tendon pull or of injury at the juxta-epiphyseal line up to complete separation. The consequences were one of the following: (1) acute periosteal abscess, (2) acute osteo-myelitis, (3) acute septic arthritis, (4) separation of an epiphysis, or (5) acute deep-seated abscess. Each of these subjects received separate notice and nearly all the points were illustrated by lantern slides from specimens. It was suggested that otorrhœa and mastoid abscess not infrequently resulted from this disease in infants less than one year old, before which time the temporo-squamosal suture was occupied by a disc of cartilage which was to all intents and purposes a conjugal cartilage. The immunity of bones developed in membrane was attributed to the absence of the epiphyseal cartilage and this juxta-epiphyseal area.—Mr. H. Littlewood mentioned a case where the path along which infection had spread to the joint was the tendon of the popliteus muscle.—Mr. Pridgin Teale also took part in the discussion and Mr. Knaggs replied.—The following cases, pathological specimens, &c., were shown:—Dr. A. L. Whitehead: A Successful Case of Temporo-sphenoidal Abscess.—Mr. J. Holmes: A Hunting Emergency Case.—Dr. A. Bronner (Bradford): (1) Recent Cases of Extraction of Senile Cataract without Iridectomy; and (2) Apparatus for the Treatment of Dry Catarrh of the Middle-ear by Suction.—Dr. T. Wardrop Griffith: (1) Traction Diverticulum of the Œsophagus; and (2) two examples of Specific Ulceration of the Palate in Children.—Dr. E. O. Croft: Specimen of Primary Cancer of the Labium (Growth and Microscopical Section).—Dr. E. Ward: A Tuberculous Testis.—Mr. Littlewood: (1) Osteoma of the Upper Jaw; (2) two specimens of Epithelioma of the Upper Jaw; and (3) Ovarian Tumour with Twisted Pedicle removed from a patient seven months pregnant.—Mr. Mayo Robson: A case of well-marked Charcot's Disease of the Knee.—Dr. J. B. Hellier: Cystic Myoma Uteri removed by Abdominal Hysterectomy.—Mr. B. G. A. Moynihan: Two cases of Spina Bifida, one Cervical and the other Lumbar, treated by Excision of the Sac.—Mr. W. H. Brown: Ossification of the Pyramidalis Muscle after Suprapubic Cystotomy.—Dr. Trevelyan: A case of Raynaud's Disease with Marked Trophic Changes in the Finger-ends.

MIDLAND MEDICAL SOCIETY.—The annual meeting of this society was held at the Birmingham Medical Institute on Oct. 16th, Mr. Jordan Lloyd, the President, being in the chair.—Mr. A. Elmslie Crabbe was elected a member of the society.—The following officers were elected for the ensuing session:—President: Mr. Arthur Oakes. Treasurer: Mr. John Garner. Secretaries: Mr. Christopher Martin and Dr. James W. Russell. Members of council: Mr. W. F. Haslam, Mr. Newton, Mr. E. B. Whitcombe, and Dr. Wood White.—The first ordinary meeting was held on Oct. 30th at the Birmingham Medical Institute, Mr. Oakes, the President, being in the chair.—Dr. M. S. Maclean, Dr. I. L. McNeill, Dr. J. T. Hewetson, Dr. J. R. Charles, and Dr. James E. H. Sawyer were elected members of the society.—The following specimens were shown:—Mr. Gilbert Barling showed a male patient, aged 48 years, upon whom he had performed Albert's Gastrostomy five and a half years previously for what was then believed to be malignant disease of the œsophagus. At the present time the man was able to follow his occupation as an edge-tool maker. He looked fairly well and vigorous and wore in the gastrostomy opening a tube of five-eighths of an inch diameter through which he was able to introduce foods of all kinds if finely divided, and there was practically no leaking at all. There was a hernia through the weakened abdominal wall where the stomach was brought through the left rectus, but this caused no inconvenience. The lapse of time having shown that the stricture was not malignant it was proposed to make an attempt to dilate the stricture from below, and if this succeeded to close the gastric opening.—Dr. F. Edge showed a patient upon whom he had performed Oöphorectomy for Recurrent Inoperable Cancer of the Breast. The left breast was amputated on April 10th, 1900. On Oct. 17th the pectoral muscles were divided and the glands were found to be shotty above the clavicle and on the vessels at the root of the neck. In February, 1901, the right breast and right axillary glands became involved. On March 10th oöphorectomy was performed per vaginam. On Oct. 30th the glands and breast lumps were quite soft and had practically cleared up. The weight increased two stones and the general well-being was much improved. Thyroid extract had not hitherto been given, but Dr. Edge now intended to make use of it.—Dr. J. G. Emanuel showed a case of Saccular Aneurysm arising from the transverse part of the arch of the aorta. The specimen was from a soldier who had contracted syphilis in India three years before the symptoms of aneurysm developed. He died 15 months after his first symptom from pressure on the trachea.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 24th, the President, Dr. C. H. Willey, being in the chair.—Mr. R. J. Pye-Smith showed a case of Unilateral Congenital Dislocation of the Hip which he had shown last February, to illustrate the results of treatment. The displacement had been reduced by Lorenz's method of manipulation under an anæsthetic and the hip had been kept for nearly four months in a plaster-of-Paris case. The deformity and limp had now disappeared and a second skiagram showed practical symmetry.—Mr. Edward Skinner showed specimens from a case of Cancer of the Lung.—Mr. E. J. Scorah exhibited microscopical specimens of Bronchial Glands, Liver, Spleen, and Kidney from a case of Lymphadenoma shown last session.—Dr. A. J. Hall showed the following cases: 1. Primary Spastic Paraplegia in a man, aged 39 years. 2. Two cases of Trade Eczema. Both patients were middle-aged women who worked as "scratch brushers." The irritant appeared to be the "sour beer" with which they brushed the silver goods. 3. Lupus Vulgaris and Lupus Erythematosus in the same patient, a girl, aged 20 years. Lupus began at the side of the nose eight years ago, shortly after she had been nursing a woman who died from consumption. There was some destruction of both alæ nasi and the upper gum was affected. Lupus erythematosus appeared much later and had twice disappeared and recurred. At the present time it had an extensive "butterfly" distribution.—Dr. S. White showed (1) a Post-rectal Dermoid containing Bone; (2) an Unruptured Tubal Gestation; and (3) a Dilated Vermiform Appendix removed from the sac of an Inguinal Hernia.—Dr. S. Riseley showed a case of Double Dislocation of the Lens.—Mr. S. Snell showed a case of (?) Vascular Growth on the Lower and Inner Wall of the Orbit. There was marked proptosis and the surface of the sclerotic below the tumour was covered by a nævoid condition of vessels.—Mr. Pye-Smith read a paper entitled "Four Cases of Gastric Ulcer in which Operation was performed together with One Case not operated on, Two Cases operated on by others, and Three Cases of Exploration for Suspected Perforation."

GLASGOW SOUTHERN MEDICAL SOCIETY.—At a meeting of this society held on Oct. 31st Dr. John Stewart gave his Presidential Address. In the course of his remarks he referred briefly to the present position of medical science and dwelt on the necessity of the general medical practitioner keeping himself well abreast of the times. The general practitioner stood between the patient on the one hand and the consulting specialist on the other, and the successful carrying out of the latter's recommendations depended greatly on the general practitioner. The idea, now somewhat prevalent, that the general practitioner must give way in time to the specialist was due, he thought, to the greater elaboration of the art as distinguished from the science. Proceeding, he contrasted the general practitioner of to-day with him of 20 years ago and contended that the practitioner had progressed proportionately with the science and art of medicine. With reference to the objects of the society of which he had the honour to be president he referred in particular to the mutual improvement in professional knowledge accruing to the members and to the corresponding advantages obtained in their work as practitioners. Touching on another

great object of the society—namely, the promotion of amicable relationships between the members—he showed how this friendship could also help the cause of medical science through the rendering of mutual assistance in family practice. In concluding an interesting address he expressed the hope that the future development of medical practice would not tend too much in the direction of a greater subdivision of labour or to an increase of the number of practitioners devoted solely to one particular branch. Rather did he hope for the production of a highly-specialised general practitioner, the very existence of whom would insure that consultants and specialists would be men of outstanding merit in their respective departments.—On the motion of Dr. James Hamilton a very cordial vote of thanks was awarded Dr. Stewart for his address.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held at Liverpool on Oct. 18th, Dr. T. B. Grimsdale, the President, being in the chair.—Dr. W. Japp Sinclair (Manchester) exhibited an Improved Portable Apparatus for Continual Irrigation with Fluid at a Constant Temperature and explained its use.—The President showed a specimen of Cancer of the Cervix in a Uterus with three and a half months' pregnancy. The symptoms of bleeding and discharge had first declared themselves with the commencement of the pregnancy. The uterus was removed successfully by vaginal hysterectomy.—Dr. J. E. Gemmell (Liverpool) showed a Uterus with four and a half months' pregnancy and extensive cancer of the cervix, which he had removed by vaginal hysterectomy. Owing to the size of the uterus it had been found necessary, after separating the bladder, to slit up the anterior wall of the cervix and uterus as far as the peritoneal fold and through this opening to empty the cavity. The subsequent steps of the operation were easy and the patient recovered and was reported to be well 12 months later.—The cases were discussed by Dr. Lloyd Roberts, Dr. Briggs, Dr. Garner, and Dr. Davies.—Dr. Lloyd Roberts (Manchester) showed a pair of Large Ovarian Cysts with Papillomatous Degeneration removed by Abdominal Section. None of the cysts had burst and the peritoneum had not become infected by the growths. There was no ascites, its absence being probably associated with the fact of the non-infection of the peritoneum. The patient made a good recovery.—Dr. Sinclair related a case of Cæsarean Section performed for the second time in the same patient. The uterine wound was so intimately adherent to the abdominal wound that the new incision was carried directly through into the uterus without opening the peritoneal cavity. The child was delivered through this opening. The patient was not sterilised by ligature of the tubes or otherwise. Both mother and child recovered.—A discussion followed on the dangers of subsequent pregnancy after Cæsarean section had been performed, and on the question of sterilising operations under such circumstances. The President, Dr. Lloyd Roberts, Dr. Davies, Dr. Croft, Dr. Briggs, and Dr. Lea took part in it and Dr. Sinclair replied.

ÆSCULAPIAN SOCIETY.—A meeting of this society was held on Nov. 1st, the President, Dr. Arthur T. Davies, being in the chair.—The President showed (1) a man, aged 26 years, the subject of marked Myxœdema; (2) a specimen of Carcinoma of the Œsophagus and Tubercle of the Lung from a man, aged 48 years, who had been losing weight for two years and had had a cough for three years before admission to the hospital; and (3) a Perforation of the Cæcum due to Typhoid Fever in a child, aged four years, whose intestine showed other small ulcers in the neighbourhood.—Mr. Harold Barnard showed a woman, aged 35 years, who had recovered from Strangulated Femoral Hernia. The bowels acted well before the operation. At the operation there was pus in the sac of the small femoral hernia and a little piece of the bowel was gangrenous. The symptoms had lasted for seven days.—Mr. W. Campbell M'Donnell related a case of a man, aged 67 years, who, having an old Scrotal Hernia, collapsed after three days' constipation, and complained of abdominal pain from the hernia to the umbilicus. The hernia was irreducible. On the sixth day of constipation he had stercorraceous vomiting. After nine days' constipation the bowels acted and recovery ensued.—A discussion followed.

NEWPORT MEDICAL SOCIETY.—At the annual meeting of the Newport Medical Society held at the Newport and County Hospital, Cardiff-road, the following officers for the session 1901-1902 were elected:—President: Dr. T. G. Macormack. President-elect: Mr. C. Stuart Vines. Honorary secretary and treasurer: Dr. J. Howard-Jones. Honorary librarian: Mr. A. Falconer Hayden. Committee: Mr. O. W. Morgan, Dr. Garrod Thomas, Mr. H. E. Williams, and Mr. W. Basset.—The honorary secretary reported that the membership had increased during the last session from 27 to 33. At the next meeting, which will be held on Friday, Nov. 29th, Mr. C. Stonham, C.M.G., who was recently in charge of the Langham Field Hospital (Yeomanry Hospital) in the South African War, will read a paper on "The Surgery of the Boer War."

Reviews and Notices of Books.

The Case for the Factory Acts. Edited by Mrs. SIDNEY WEBB, with a Preface by Mrs. HUMPHRY WARD. London: Grant Richards. 1901. Pp. 233. Price 2*s.* 6*d.*

THIS book is described in the words of one of its authors as being "the outcome of a small conference of ladies of all shades of opinion, yet agreeing in a common belief in the advantages of factory legislation, and especially in the advantages to working women of such legislation." At the conference it was decided to form a society, which was named the Labour Law Association, and "as a first step the association decided to get a small book written." Mrs. Sidney Webb, Miss Clementina Black, and Miss Tuckwell were appointed to arrange for the preparation and publication of the book, and these ladies have written respectively on the Economics of Factory Legislation, Some Current Objections to Factory Legislation for Women, and the More Obvious Defects in our Factory Code. The other two chapters are entitled, The Historical Development of the Factory Acts, written by Miss B. L. Hutchins, and Colonial Developments in Factory Legislation, by Mrs. W. P. Reeves. There is an appendix of three pages, giving a list of books recommended to those who wish for further information.

Mrs. Sidney Webb, in the first paper, states that women did not concern themselves with such matters as factory legislation a century ago, and that "the women of to-day are no cleverer" than the men of 100 years ago. But the women of to-day have this great advantage. They can study the history of factory legislation and they can see that men began "by making every mistake that could possibly be made on the subject." Unfortunately, some women even now, it seems, are arguing exactly as the men of their class argued when they too had no experience to guide them. A word of caution is required by such people, and Mrs. Webb gives it. "My warning is," she says, "to form no conclusions till you know the facts." It may be presumed that Mrs. Webb considers that she is armed with this knowledge, and it is interesting to see how she applies it to the solution of difficulties which have been the despair of less enlightened people. A true knowledge of the economics of factory legislation leads her to throw a new light on agricultural depression. Some trades are regulated by the legal enforcement of common rules. These trades tend to expand. "The farmer has been free from all common rules. He has always been free to hire his labour at the lowest possible wages." He is able to insist that the day's toil shall endure from sunrise to sunset, and he is not obliged to take expensive precautions to insure his labourers against the effects of unhealthy exposure. "Poor agriculture" has therefore "gone increasingly to the wall and finds itself losing more and more even of the home trade." Is it too much to hope that Mrs. Webb will be able to draw up the regulations which are necessary to put agriculture on a firm footing and at the same time increase the comfort of the labouring classes? At present it is to be feared that shepherds often work more than an eight-hours' day, and

that ploughmen are occasionally exposed to inclement weather. It would be a noble work even for a "brilliant writer, economist, and historian"—all of which qualifications we have Mrs. Humphry Ward's authority for saying are possessed by Mrs. Webb.

Miss Clementina Black in her essay on Some Current Objections to Factory Legislation for Women incidentally informs us that "a publisher does not offer a lower royalty to Mrs. Humphry Ward than to Mr. George Meredith." And this fact may perhaps incline readers to weigh well Mrs. Ward's golden words and to accept her opinion that the writers are "well acquainted with the subjects on which they speak." For her own part she modestly claims "no special knowledge of the great matters with which they deal," but she turns to the "vast English public" with "beckoning finger" which expresses the profit and pleasure she has derived from the book, and she passes on to express her regret that more is not generally known of the Factory Acts, their origin and their results. "What the Factory Acts are—how they came about and what have been their effects. Strange! that of one of the noblest chapters in the history of the nineteenth century there should be so little general knowledge among us to-day." There is plenty of good sound literature on the subject, and to those seriously interested in the matter it may be worth while to point out that what the Factory Acts are may best be understood by reading them attentively, and that copies may be obtained at Messrs. Eyre and Spottiswoode's. The way in which they have been administered is best seen by reading the annual reports of the Chief Inspector of Workshops and Factories. To the imaginative writer, however, facts may have a repressing influence, and if Mrs. Ward had read only the latest of the factory reports it would have prevented her from writing her preface in its present form.

It has been incidentally mentioned that the book contains an appendix to which those wishing to make a study of the subject are recommended. The exact treatises which we have mentioned are not included in this list, but it mentions two books by "S. and B. Webb," one by Sidney Webb and Harold Cox, and two by Mrs. Sidney Webb. In her essay on the More Obvious Defects in our Factory Code Miss Gertrude Tuckwell points out that owing to recent agitations on the subjects of lead and phosphorus poisoning "the public has learnt that there are in certain trades the added danger presented by liability to some special disease." The late Dr. J. T. Arlidge's great work on the Hygiene, Diseases, and Mortality of Occupations was published as long ago as the year 1892. It is not included in Mrs. S. Webb's list of books.

Miss B. L. Hutchins in her essay on the Historical Development of the Factory Acts, instead of following the Acts in chronological order, adopts the classification used in a German text-book on the subject and treats of them under their different aspects: (1) extent of their application to industries and classes of persons; (2) scope and protection, including limitation of hours, provision for health and safety, and education; and (3) method of administration. The essay, though not up to date and occasionally ungrammatical, is not without merit, and the writer has apparently taken pains to get a good general idea of the subject on which she wishes to instruct the public.

Mrs. W. P. Reeves's article on Colonial Developments in Factory Legislation is not entirely lacking in the element of humour. Victoria and New Zealand, we are told, furnish "the most progressive factory legislation." Both colonies have had the courage to adopt principles of labour legislation which other countries "are still painfully boggling over." In one of these enlightened and progressive countries a wide definition given to the term "factory." A wife and her husband still count as one person, but any two persons not married to one another constitute "a factory" when they are working together. "A mother and child make a factory and have to be registered as such. They must observe factory regulations as to hours and sanitation and are open to inspection at all hours." This thing apparently seems well in the eyes of Mrs. W. P. Reeves, and the system generally, she thinks, has its lessons for the mother country. Possibly it has. Perhaps in this respect the mother country will contrive to "boggle" on as it is.

To the few people who know about the Factory Laws and their administration and who have sufficient leisure for light reading this book may prove amusing, but with the exception of Miss Hutchins's essay on the Historical Development of the Acts (which might with advantage be expanded, brought up to date, carefully edited, and published separately), the book cannot be taken as a serious contribution to the literature of the subject.

A Text-book on the Practice of Medicine. By Dr. HERMANN EICHHORST, Professor of Special Pathology and Therapeutics and Director of the Medical Clinic in the University of Zürich. Authorised translation from the German. Edited by AUGUSTUS A. ESHNER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic and Physician to the Philadelphia Hospital. Vol. I., pp. 628; Vol. II., pp. 590. With 84 Illustrations. London and Philadelphia: W. B. Saunders and Co. 1901. Price 26*s.*

FOR purposes of reference this text-book will be found useful, as it abounds in details that are not usually found in English text-books. Students will, however, be rather confused with the numerous sub-divisions under which most of the diseases are arranged. For instance, it would but little benefit a student preparing for his examinations to learn that "several forms of endocarditis have been distinguished and they have been designated ulcerative, verrucose, and contracting." The last term is not used in English manuals, and we doubt whether any student would recognise the phrase "recurrent contracting endocarditis" as designating chronic valvular disease of the heart which has again become acute. The part of the work dealing with Diseases of the Nervous System is well carried out, although here again we are inclined to cavil at the numerous sub-divisions occurring under the headings "peripheral paralysis" and "neuralgia."

For a general text-book of medicine an unusual space is allotted to Diseases of the Skin, but for reference this is not at all to be deplored.

In the parts of the work devoted to treatment the decimal notation is retained as in the original, but the British equivalent is always given. The book is also of interest as a comparison between the Swiss and English methods of considering disease and its treatment, and those who are unable to read German will thank Dr. Eshner for the very able translation which he has made of Dr. Eichhorst's text-book.

Modern Obstetrics, General and Operative. By W. A. NEWMAN DORLAND, A.M., M.D. With 201 Illustrations. Second edition, revised and enlarged. London and Philadelphia: W. B. Saunders and Co. 1901. 8vo. Pp. 797. Price 16*s.*

To this, the second, edition of his text-book Dr. Dorland has added chapters on the Surgical Treatment of Puerperal Sepsis, Infant Mortality, Placental Transmission of Disease, the Serum-Therapy of Puerperal Sepsis, and the Rôle of the Liver in the Production of Puerperal Eclampsia. He holds that serum-therapy to be effective requires firstly, the accurate recognition of the form of infection with the early employment of the appropriate antitoxin; secondly, the dilution of the poisoned blood by the active introduction into the system of a normal salt solution, either by hypodermoclysis, by rectal clysmata, or by direct intravenou transmission; and thirdly, the restoration of the blood to

normal condition by measures that will increase leucocytosis or that will produce hyper-leucocytosis as from the administration of the nuclein preparations. The plan is still followed in this edition, as in the first, of giving the measurements of the fœtal head and the pelvis in inches with their exact equivalents in centimetres to four places of decimals. The student cannot be expected, and will not try, to remember such figures. The easy method of regarding one centimetre as two-fifths of an inch and expressing the fraction as fifths of inches, or half a centimetre, is preferable to the one adopted, and is sufficiently accurate for all the purposes of pelvimetry. In discussing the differential diagnosis of various conditions, such as pregnancy and ovarian tumours, very useful tables are given containing the physical signs and symptoms likely to be of most use in making such a diagnosis. The line of practice advocated differs in a good many instances from that adopted in many English text-books, but Dr. Dorland's treatment is on the whole moderate and sound. In discussing post-partum hæmorrhage he would rely upon gauze plugging of the uterus before trying the effect of a hot douche, an order of procedure which we should reverse. Dickinson's method of controlling the hæmorrhage in such cases by seizing the uterus through the abdominal wall, lifting it out of the pelvis, and compressing it against the spine while the lower hand grasps and manipulates the cervix, is described and recommended. The book is not so good as many of our English text-books, but is on the whole trustworthy and appears to find some favour amongst American students and practitioners.

Archæology, Education, and Medical and Charitable Institutions of Glasgow. Edited by MAGNUS MACLEAN. Glasgow: Published by the Local Committee for the meeting of the British Association (James Maclehose and Sons). 1901. Pp. 239. Price 3*s.* 6*d.*

IN connexion with the meeting of the British Association for the Advancement of Science which has this year been held in Glasgow the local committee has prepared three volumes, one of which is now before us, the other two dealing respectively with the Fauna, Flora, and Geology of the Clyde Area and the Local Industries of Glasgow. Mr. MacLean deserves credit for the manner in which he has brought within moderate compass and arranged in a convenient form an immense mass of information on a great diversity of subjects. As the title indicates, the book is divided into three sections and consists of 43 separate articles, most of them being by different authors, whose names are given. Part III.—Medical and Charitable Institutions—includes 29 such sub-headings contained in 60 pages, the most important of them having for their subjects the Faculty of Physicians and Surgeons, Anderson's College Medical School, St. Mungo's College Medical School, the Glasgow Royal Infirmary, the Western Infirmary, the Victoria Infirmary, Poor-law Hospitals and Infirmaries of the Parish of Glasgow, Asylums of Glasgow, and Municipal Fever Hospitals. The University is described under Part II.—Education.

Diseases of the Rectum. By WILLIAM ALLINGHAM, F.R.C.S. Eng., and HERBERT ALLINGHAM, F.R.C.S. Eng. London: Baillière, Tindall, and Cox. Seventh edition. With 69 Illustrations. Pp. 471, demy 8vo. Price 12*s.* 6*d.* net.

THIS work is already so well known and its practical nature so valued that a seventh edition does not require elaborate criticism at our hands. The alterations are the work of Mr. Herbert Allingham, and his views on inguinal colotomy particularly, and on the subject of excision of the rectum for cancer, on which questions the chief differences from the original edition arise, are also familiar to medical readers. Mr. H. Allingham considers the question of age in the subjects of cancer of the rectum of the very highest importance as regards the decision whether or not to employ excision. He finds recurrence in young subjects of most disheartening frequency in spite of the freest removal, and those who are familiar with his operative methods will not be inclined to accuse him of timidity in dealing with cases that require drastic measures. In performing excision he always employs a modification of Kraske's method, except for cases in which the disease is limited to the neighbourhood of the anus and sphincters. In these cases the perineal route is chosen. The practitioner will find the chapter on After-treatment of Cases of Operation for Hæmorrhoids of the greatest assistance. This is a subject that, considering the extreme frequency of the cases and the serious inconveniences arising from lack of careful after-treatment, does not commonly receive enough attention from the general practitioner, or even from the surgeon.

Another point upon which this book may be carefully studied with advantage is the question of palliative or operative treatment in cases of hæmorrhoids. The authors discuss the matter closely, showing what cases may reasonably be treated without any operation and what kinds of milder treatment are most suitable to their cure. The ligature is to be used in a vast proportion of cases. Mr. H. Allingham does not recommend cutting off the hæmorrhoids and is careful to secure a narrow base for application of the ligature. His method necessitates a longer convalescence than do some others, but Mr. Allingham claims for it that it secures practically absolute freedom from recurrence of the affection for the cure of which it was employed. As regards cancer of the rectum Mr. H. Allingham's work on inguinal colotomy has done much to secure for the operation its present favourable position. The operation as he performs it is one of great simplicity and need never be avoided on account of the patient's debility or abdominal distension. The most recent modification in the method is the abolition of the mesenteric stitch in favour of a Spencer Wells clip. This is passed through the mesentery closed and is then made to rest on the abdominal wall, gripping a piece of gauze. Thus the clip cannot slip through from the blade-end and the handles prevent it slipping through from the other. A few stitches are inserted between the skin and the musculo-serous coats of the bowel. The authors give excellent practical directions for finding the bowel when any difficulty arises and say: "There is no excuse for not being able to find the colon, nor is there any for making a mistake as to what part of the intestine is the colon. We have never yet seen a case in which both longitudinal bands and appendices epiploicæ have been absent in the large intestine." We have said enough to show that the seventh edition of this work will confirm the position which it already holds as a thoroughly sound and practical guide to the treatment of diseases of the rectum.

Diseases of the Nose and Pharynx. By J. B. BALL, M.D. Lond., Physician for Diseases of the Throat, Nose, and Ear, Lecturer on Diseases of the Nose and Ear, West London Post-Graduate College; formerly Physician to the West London Hospital. Fourth edition, 61 Illustrations. London: Baillière, Tindall, and Cox. 1901. Pp. 439. Price 7*s.* 6*d.*

THE last edition of Dr. Ball's book was only published in 1898, which is a proof of its popularity. He has not increased the size of the book since his last edition, though certain small additions and corrections have been made. He has thus been able to keep the work within a moderate compass while giving, as we have said before with regard to previous editions, a concise and intelligible description of the diseases of the nose, naso-pharynx, and accessory cavities. His views on general diagnosis show that Dr. Ball is able to impart his knowledge to others clearly and

concisely, though there is certainly one point in which improvement might be expected. The want of good drawings of pathological states of the nose and naso-pharynx, to which we alluded in our earlier reviews of Dr. Ball's book, is still evident.

The chapter on Methods of Treatment contains valuable information of a practical character with regard to syringing and irrigating the nose. While speaking of inhalations again Dr. Ball gives many useful hints, and the same may be said of the directions for the use of the galvano-cautery. We quite agree with Dr. Ball in thinking that the existence of a non-diphtheritic membranous rhinitis cannot at present be denied; in fact, we think he might have made the statement in stronger terms. In the treatment of chronic rhinitis the directions to be given to the patient with regard to sniffing and blowing the nose are well worthy, we think, of a more wide application than is generally given to them; and we endorse Dr. Ball's veto with regard to the use of astringent sprays and powders in this disease. Dr. Ball is not impressed with the theory that ozæna is at all frequently a sequel to suppuration in the accessory sinuses, and whether his view that this disease (fœtid atrophic rhinitis) will be proved to be due to a specific micro-organism is sound we venture to doubt. In operations on adenoid vegetations Dr. Ball declares his preference for Gottstein's post-nasal curette, having now entirely given up using any form of forceps. He also prefers the use of chloroform for young children, and ether for older children and adults, and, for his own part, is not in favour of nitrous oxide gas.

The chapter on Reflex Nasal Neurosis is very complete, and in speaking of hay fever Dr. Ball describes every approved variety of treatment. Further points upon which we congratulate Dr. Ball are that when discussing deformities of the septum he has not been led into those subtle and useless subdivisions which have been adopted by some writers; while the parts of the book on morbid growths and infectious disorders of the naso-pharynx and pharynx are excellent; as is the description of pharyngeal diphtheria.

LIBRARY TABLE.

Surgical Applied Anatomy. By Sir FREDERICK TREVES, K.C.V.O., C.B., F.R.C.S. Eng., consulting surgeon to the London Hospital, &c. New edition, revised by the author with the assistance of ARTHUR KEITH, M.D. Aberd., F.R.C.S. Eng., Lecturer on Anatomy at the London Hospital. Twenty-fourth thousand. London: Cassell and Co. 1901. Pp. 571. Price 9*s.*—This the last edition of Sir Frederick Treves's admirable manual can only be said to be an improvement upon its predecessors by reason of the most modern views of surgery being incorporated in it, for all the other issues of the book were as complete as they could be, having regard to the state of knowledge at the time at which they were written. That 24,000 copies have been printed shows that the book is appreciated at its true worth, and we can only say that not only practitioners and senior students will find the book eminently useful, but that junior students who are just commencing the apparently unattractive study of anatomy will find by reading it that the dry facts of that science will have a real meaning and will be imbued with interest. We must give a word of praise to the publishers for printing a detailed statement of the various editions and the dates at which they appeared and can only exhort other publishers to do likewise.

Unprofessional Tales. By NORMYX. London: T. Fisher Unwin. 1901. Pp. 248. Price 6*s.*—This book is dedicated to Ouida and we hope that that accomplished lady values the dedication, for of all the drivel which it has been our bad fortune to read this book takes first place. Some silly books are amusing—this one is dull. We can do no better than quote a few sentences which express our opinion perfectly: "Convince yourselves that I am perfectly calm.[1] .....I do not profess to know what it means or whether, indeed, it means anything."

Home Exercises for Spinal Curvature, adapted from Ling's Swedish System of Medical Gymnastics. By RICHARD TIMBERG, graduate of the Royal Gymnastic Institute of Stockholm. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Pp. 70. Price 2*s.* net.—This little book is well adapted for those who are anxious to treat either themselves or those under their charge by means of simple gymnastic exercises involving the use of no apparatus other than a broomstick. Lateral curvature is of course the kind of curvature chiefly dealt with, though angular curvatures are just mentioned. Exercises carefully and rationally used are nowadays, in addition to some simple forms of apparatus, the chief method relied upon for the removal of lateral curvatures, and Mr. Timberg's little book will be found valuable as giving a clear account of the necessary exercises. We are glad to see that he insists upon the advisability of the exercises being supervised by some competent person. But there are many cases in which a patient must do the best he can for himself and careful attention to the rules laid down by Mr. Timberg will enable him to get good results. He can check his position either by standing between two mirrors, or in most cases, at any rate, he can get a friend to tell him whether he is standing straight or not.

Report on the Health and Sanitary Works in Calcutta for the Year 1900–1901. By J. NIELD COOK, D.P.H., Health Officer. Calcutta: Printed at the Municipal Press. 1901. Pp. 56 (tables included).—According to the census of 1901 Calcutta had a total population of 843,487, being an increase of 161,927, or 23·7 per cent. over the figures of the census of 1891. In his report on the health of the city during the calendar year 1900 Mr. Cook says that the total number of children born, exclusive of still-births, was 10,773, which gives a ratio of 12·7 per 1000 per annum. The total number of deaths was 36,728, which gives a ratio of 43·5 per 1000 per annum. The "five principal diseases" and the total deaths therefrom were as follows: cholera, 2754 deaths; plague, 8354 deaths; dysentery and diarrhœa, 4126 deaths; fever, 7642 deaths; and small-pox, 1010 deaths. Mr. Cook considers that the mortality of Calcutta is progressing in spite of all the work that has been done and the money that has been spent to improve the sanitation of the town. During the last decade three diseases not previously recorded in Calcutta have made their appearance—namely, influenza, cerebro-spinal fever, and bubonic plague. The maximum shade temperature was 103·6° F. in April; the minimum was 50·8° in January.

Ceylon: Administration Reports. Part IV. Miscellaneous. Medical. Pp. 67.—The estimated population of the Island of Ceylon on Dec. 31st, 1900, was 3,612,303. During the year 136,051 births were registered and 100,873 deaths, giving a birth-rate of 38·2 per 1000 and a death-rate of 28·3 per 1000 calculated on the estimated population at the middle of the year. Mr. Allan Perry, Principal Civil Medical Officer and Inspector-General of Hospitals, states that the public health of the island was good during the year 1900. There was an absence of wide-spread outbreaks of malarial fever, but cases of cholera and small-pox were numerous. The number of cases of enteric fever treated in the various hospitals throughout the island was 224, with 77 deaths. No case of plague

[1] Cf. Pet Marjorie:
"But she was more than usual calm,
She did not give a single dam."

occurred. In a report published in the appendix Dr. T. F. Garvin states that the Boer Camp at Diyatalawa, 157 miles from Colombo, was opened on August 9th, 1900, when the first batch of prisoners of war from South Africa arrived. The number in camp on Dec. 31st was 4256. The number of deaths up to the end of the year was 73 out of a total population of 4396, or 1·6 per cent. Enteric fever first began in the camp on Sept. 24th; the total number of cases to the end of the year was 601, and of those 50 died, being a mortality of 8·3 per cent.

The Life History of British Serpents. By GERALD R. LEIGHTON, M.D. Edin. Edinburgh and London: William Blackwood and Sons. 1901. Pp. 383. Price 5*s.*—The average dweller in these islands has a hazy idea that snakes are in out-of-the-way places and thinks that they all "sting," that they are all poisonous, and that they are slimy. The better informed person is quite conversant with the grass- or ring-snake and with the adder. He knows that the former is harmless, with the exception that it can put forth a heathenish smell, and that the latter can and does inflict a poisonous bite. He also knows that snakes are not slimy. The expert is aware of the existence of a third kind—namely, the smooth snake, *Coronella Austriaca.* Dr. Leighton is an expert and any ordinary person who digests the book before us will have a greater knowledge of snakes than he ever had before. On the vexed question as to whether the female adder receives her young ones into her gullet for safety when danger threatens, Dr. Leighton, as becomes a scientific man, preserves an open mind. There is, at all events, no reason which renders it impossible for a female adder to swallow her young. Plenty of observers have seen such apparent swallowing or have seen the young adders coming forth from the mother's mouth, but apparently no one has as yet captured a female adder with the young in the gullet. At present we can but say that the fact is not proven.

Advice to Women on the Care of the Health Before, During, and After Confinement. By FLORENCE STACPOOLE, Diplomée of the London Obstetrical Society and Lecturer to the National Health Society. Third edition. London: Cassell and Co. 1901. Pp. 184. Price 2*s.*—This little book, which has reached a third edition, contains a good deal of useful information for women concerning pregnancy and child-birth. It is clearly written and the facts which it is important for a mother or a nurse to know are well described. The author, however, has added a number of prescriptions for use in such conditions as indigestion, diarrhœa, neuralgia, and other disorders of pregnancy. These prescriptions, she states in the preface, have been prepared for her by an "experienced doctor." They are entirely out of place in such a work and should never have been inserted. Under no conditions could we recommend a book which contains such prescriptions, encouraging as it does the foolish and dangerous habit of self-prescribing without the advice of a medical man. We must point out to the author that there is no such thing as a "diplomée" of the Obstetrical Society of London and that she has no right to describe herself as such on the title-page.

Small-pox: its Prevention, Treatment, and History. London: Florence White. Pp. 82. Price 6*d.*—This little compilation is well-timed in its appearance. It is obviously intended for popular use and it is an exception to many medical pamphlets so intended by being accurate and not sensational. The writer, we notice, accepts a microbic origin of the disease without question. The case for vaccination is not so strongly put as is justifiable and as we should like to have seen it put. This defect, however, is to a large extent remedied by a concise appendix giving some authoritative opinions in favour of vaccination, mainly from the pamphlet issued by the Council of the British Medical Association in 1898. Doubtless this book will find a wide general sale at the present time, and in spite of its somewhat awe-striking cover it is the kind of popular medical work which does the least harm in lay hands. Miss Florence White is, we imagine, the first lady-publisher to issue anything of this kind, and she may be congratulated upon her enterprise.

JOURNALS AND MAGAZINES.

The Scientific Roll and Magazine of Systematised Notes. Conducted by ALEXANDER RAMSAY. Bacteria. Vol. I., No. 3. London: Published for the proprietor by R. L. Sharland. 1901. Pp. 31. Price 1*s.*—This publication has aims somewhat similar to those which were possessed by the "Annus Medicus." The present number is concerned with bacteriology. The names of the authors are placed alphabetically under the year in which their communications were published. In order, therefore, to find a certain reference the reader must be aware of the name of the author and not only of the nature of the communication. If the reader wishes to ascertain what has been written concerning certain subjects he has to glance through the whole publication to find the information he requires. As it stands, however, the publication should prove a valuable one. We are informed that the number of subscribers is now 45; when this has increased to 200 the work will be issued monthly. We trust the desired number will be forthcoming. We should add that the roll is not drawn from English sources only, but foreign works, especially German and French, have also been consulted.

New Inventions.

THE FUMELINE LAMP.

THE fumeline lamp represented in the accompanying illustration is used for the vaporisation of a volatile antiseptic or disinfectant. It consists of a cylindrical support about three and a half inches high and a shallow dish or saucer, both made of tin-plate. Fumeline is the designation of a powerfully antiseptic mixture, two teaspoonfuls of which are put into the dish, and an ordinary night-light is then placed underneath as a source of heat. The apparatus is extremely simple and danger from fire seems to be almost impossible; the bottle containing the fumeline is labeled "poison," and this substance must evidently be kept out of reach of children or delirious persons. The lamp is so constructed that if the light is not required in the room the night-light may be shielded from view. The agents for the apparatus are Messrs. William Edwards and Son, 157, Queen Victoria-street, E.C. The price, including a supply of fumeline, is 2*s.* 6*d.*

WINSLEY SANATORIUM FOR PHTHISIS.—At the meeting of the Sanitary Committee of the Bath Town Council held on Oct. 28th the sub-committee recommended that the Council should contribute £500 towards the cost of the Winsley Sanatorium and that the corporation should have the right of the use of two beds at an annual cost of £65 each and also be represented on the commitee of management of the institution. The Sanitary Committee unanimously supported the recommendation, which will now be brought before the town council.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 9, 1901.

Dr. Glover and the General Medical Council.

In another column will be found a letter from Dr. GLOVER announcing his intention not to offer himself as a candidate at the forthcoming election of Direct Representatives of the medical profession upon the General Medical Council. Dr. GLOVER'S reason for his action is one that must be satisfactory to everybody, however much the course that he is taking may be regretted. He is warned by his medical advisers that he cannot, with safety to himself, discharge the onerous duties of practice and at the same time support the grave and delicate responsibilities that devolve upon the tiny group of members who represent upon the General Medical Council the popular vote of the profession as a whole. It is characteristic of Dr. GLOVER that when he found that he could not give his best to the profession he retired rather than offer services which, tried by his own high estimate, he was not able to deem completely efficacious. Dr. GLOVER has served the medical profession as a Direct Representative on the Council for 15 years, having been originally elected in 1886, the year when the principle of direct representation was conceded, with Mr. WHEELHOUSE and Sir WALTER FOSTER as his colleagues. He was re-elected in 1891 at the head of the poll with the same colleagues, and was again re-elected in 1896 with Dr. RENTOUL and Mr. GEORGE BROWN. During the whole of this long service he has had ever before him his desire to render the profession that he loves an honourable and dignified calling.

We do not propose to enumerate the claims that Dr. GLOVER has upon the consideration of his large constituency. Are not his actions at the Council Board recorded in page after page of the reports of the proceedings at the General Medical Council, and do they not always show that his single ambition was to discharge his trust worthily and wisely? But we may remind our readers in a few words that their special confidence in Dr. GLOVER, as shown by electing him and re-electing him as often as he was able to offer himself to their suffrages, was particularly justified. Dr. GLOVER has not been a noisy advocate of his virtues, and in his brief election addresses he never made enormous promises, but his work was sure and sterling. One of his first votes in the Council was against discussions *in camerâ*, which were then considered more necessary than they are now, and which he stated should be reduced to a minimum. This was a very early declaration that hole-and-corner legislation by a small group for an enormous number of educated men could not be tolerated—it was tantamount to an assertion that the medical profession have a right to demand from the General Medical Council, and not only from the Direct Representatives but from every member of that Council, an account of their conduct at the deliberations of the Council. The only way in which the medical profession could learn which members of the Council had a proper conception of their duties and which had not was by publicity. We make no secret of the fact that Dr. GLOVER was here carrying on the policy of THE LANCET, for it is perfectly well known that he has been for many years a valued colleague on the staff of this paper; but what we want to bring out is the credit that is due to Dr. GLOVER for the present familiarity of the medical profession and the lay public with the transactions of the General Medical Council. Dr. GLOVER, again, was particularly zealous in his efforts to elevate the standard of medical education of the country, while it was upon his motion that the Council instructed its Executive Committee to report on the disciplinary functions of the examining bodies, both universities and corporations. Here he showed himself the true reformer, raising a voice against the pernicious view that the General Medical Council is a congeries of gentlemen representing the interests of some two dozen educational centres instead of a body instituted for the protection of the public and employed in safeguarding the health of the public by educating the medical profession up to a proper pitch and ensuring that they regulate their conduct according to a high ethical model. The Acts of Parliament under which the Council exists provide but one punishment for all offences, whatever their degree and whatever their kind, so that the ignorant and half-accidental delinquents find themselves treated with the same rigour as the convicted forger—that is to say, their names are removed from the Medical Register if their "infamous conduct in a professional respect" is proved. Dr. GLOVER perceived that enormous pressure could be brought to bear upon the weak vessels of the medical profession through the examining bodies whence they obtain their qualifications to practise, what was required being that the examining bodies should consent to play their part. Hence his motion that a report should be prepared which would show what powers, if any, the various examining bodies possessed over their graduates or diplomates, for when such returns were made it would be certain that no university or corporation would dare to lag behind its fellows for long. All would have to show themselves anxious in the same degree to keep the Medical Register pure. The motion was a direct attack upon the narrow spirit which would make the representative of an examining body upon the General Medical Council conceive it to be his one duty to save his own corporation trouble, and it has already borne excellent fruit.

With regard to the question of registration of midwives Dr. GLOVER spoke with no uncertain voice. He agreed—and it is difficult to see where dissentients can be found—that something must be done to protect the lives of the parturient poor from the risks of being attended by women entirely ignorant of the first elements of puerperal safety. He considered that the training needed for midwives should be of a character to enable them to act as midwifery nurses in safe cases, while they should be required in all others to send for a medical man. He entirely

disapproved of the proposal of a course of three years' training for midwives to be followed by examination and registration:—firstly, because such a measure would create a class of nurses too costly to serve the needs of the poor women who constitute the section of the population requiring assistance during childbed; and, secondly, because there would be a danger under such a scheme of creating a semi-medical order, who would be competitors with medical men for patients, while not possessing the necessary qualifications. Certain shades of Dr. GLOVER'S views on this question, and on others, did not meet with our approval, a fact which did not turn him from his independence or shake our confidence in the valuable nature of his services to the medical profession as Direct Representative upon the General Medical Council. At about the date when we expected to be advocating the claims of Dr. GLOVER to a fourth election upon the General Medical Council we find ourselves bidding him adieu in his character of a Direct Representative. We do so most regretfully, and we know that our sentiments are very generally shared.

The Report of the Committee on Navy Rations.

THE Committee appointed to inquire into the question of navy rations, meal hours of the sailors, and the management of canteens had a very important and at the same time very difficult subject submitted for their consideration. Not only had they to take up the general question of the victualling of the fleet in being, with special reference to the sufficiency or otherwise of the present ration and to the hours for meals on board ship (and consequently to the arrangements for the issue of the ration), but the retention of the system of "savings" which has been in force for upwards of 100 years, and to which the men of the navy are much attached, had to be taken into account, as well as the influence of the extension of late years of the system of canteens on shipboard. The effect which any of their recommendations might have, moreover, on the victualling of the fleet in time of war had to be borne in mind. By "savings" is meant monetary payment in lieu of rations and articles of diet in kind. Where the conditions are so complex and so many circumstances have to be taken into account, as in the present case, it follows that the report must be largely technical in character. It must be studied from an expert point of view, and carefully studied, in order to be properly appreciated and understood. We publish in another column a review of the report from the unconventional pen of a correspondent who is in an admirable position for knowing what he is talking about. It will be seen that he is very critical, but it will also be seen that he comes to the conclusion that the recommendations of the Committee are praiseworthy. We think that any of our readers who study the report will find themselves in agreement with him.

It is clear that the Committee have expended a great deal of time and labour in taking and digesting the evidence of a large number of witnesses able to give practical information. We do not suppose that there is, or can be, any finality about the recommendations of the Committee in a matter of dietary where so much may be learned from actual trial and experience, but if we may judge from our examination of them and from the opinion expressed by some experienced naval medical officers to us, we may safely congratulate those responsible for the report on having taken a decidedly forward step in advancing the health and comfort of our sailors. The constitution of the Committee was on the whole a good one, the great predominance of laymen proving not so objectionable as might have been expected. But where so complicated a subject as the nutritive value of aliments and food-stuffs in relation to health and work is concerned it would have been strengthened by the presence at the council board of some scientific expert accustomed to laboratory investigations to help Deputy Inspector-General IRVINE, the one medical member of the Committee. The medical evidence, if somewhat conflicting as to the sufficiency or otherwise and the dietetic qualities of the ration, was practically unanimous in regard to its lack of variety. In Table 3 of Appendix IV. of the report the nutritive values of naval and other dietaries in respect of albuminous matters, hydrocarbons, and carbohydrates are set forth; those of the standard diet for a man undergoing laborious work, for an English railway navvy, an Australian stockman, and a prize-fighter in training are also given by way of contrast and comparison. In this way it is possible to gauge at once the reason and force of the recommendations of the Committee; and this clearness is a feature of blue-books and departmental reports the absence of which we have more than occasionally to regret.

There is some reluctance occasionally on the part of those concerned to enforce strictly their powers in dealing with contractors. We are glad to notice that the Committee lay much stress on the point that quality alone, and not price, should be the consideration which should decide the acceptance or rejection of all articles supplied for the consumption of seamen. The Committee had to deal with a very important question in imposing a limit on the quantity of fresh meat which might be "saved" while ensuring that the consumption of fresh meat should be sufficient to keep the men in good health. "The proportion of the fresh meat ration which," the Committee recommend, "may be saved should be limited to one-third at the home ports, as in the Channel squadron, and on foreign stations." It is also suggested that fresh mutton instead of fresh beef should be issued as a change when desired. While some reductions in the present ration are recommended a number of additions are proposed by the Committee which will have the effect of making it a more varied and desirable dietary. Pages 39 to 42 of the Report are taken up with a complete summary of the recommendations of the Committee on the subjects referred to them for consideration, and may be read by those who have not leisure to read the whole Report. But the interesting subject of the victualling of our fleet is treated by the Committee in so readable a fashion that we believe most medical men will not be content with the summary.

A Material Age.

FOR all who love ceremony this is a sad age. The hurry of modern life leaves no time for all those stately courtesies and dignified rituals that adorned the "spacious days" of our forefathers. In our own profession at this time of the year the decay of all such decorative proceedings is

particularly impressed upon our minds by the fading custom of introductory addresses at the medical schools. Even these ceremonials, of no great antiquity and originally of obvious worth and purport, are gradually being condemned as too ponderous for the spirit of the age. The student, though only at the beginning of his career, must not be asked to sit still for an hour while a wise man discourses in a general fashion upon the profession in which he is distinguished and in which his hearers hope to become so. Introductory addresses are being pushed out of the lecture theatre of the medical schools as classics are out of the class-rooms of the public schools. As a result of the wide competition and the ever-growing accumulations of knowledge in every profession—nay, in every branch of every profession—there is no time or place to-day for the superfluous. We are all perforce utilitarians and can only spare attention for that which directly furthers our particular aims.

At a recent famous trial for bigamy nobody paused to admire the historic house, the quaint ceremony, or the splendid apparel associated with the proceedings; but everybody was busy deploring the time that these old usages demanded and the expense involved in what might have been a much quicker and cheaper administration of justice. Time and money, how to save the one and to make the other,—these are the ruling questions of modern life. The average man is in a fair way to forget that there are other things worth considering; and only the very wise or the very wealthy care to be lavish of time and to forfeit money in the pursuit of learning, peaceful and unremunerative, undertaken simply for its own sake and the sake of sound knowledge to be acquired. Nowadays everything must move fast and must have a direct purpose. The altered manner is apparent in all the affairs of life. Starting with one old custom which used to mark what is often the first important epoch in a man's life—the wedding-breakfast—we can see a general disappearance of all grave and stately, if perhaps tedious, formalities. Weddings to-day are unaccompanied by breakfasts. It is more to the point to encourage some proceeding by which more friends can be accommodated at a less cost of time and of money. To consider the relative comfort of your guests is no part of the modern programme, so a couple of hundred guests and relatives are crowded for a few hot, jostling, champagne-sipping moments into a room where a quarter as many of their grandparents would have solidly enjoyed themselves for a couple of hours. Conversation as a formal proceeding we have long dispensed with, and the vapid inanities of the fleeting "at home" replace the solemn speeches, the weighty toasts, and the cheerful dialogue of the wedding-breakfast.

There is no department of affairs perhaps in which this general change of manner is more apparent than in the personal conduct of medical matters. The very idea of a "doctor" in earlier days conjured up the notions of deliberation, gravity, and a solemn and formal procedure. To-day we picture him rather as a brisk man, of keen eye and few words. We have no hesitation in declaring our practical modern methods to be as much to the patient's advantage as they are to that of the medical man, but the contrast is none the less marked. Then, he would begin his visit by formal, possibly learned, conversation, and terminate it with rounded periods of hope or grave expressions of anxiety confided to the relatives; now he sees his patient on his arrival, has a few words with the nurse, and jumps on to a bicycle. He is summoned by a telegram, prescribes through the telephone, and arrives in a motor-car. The old-fashioned medical man was in nothing more precise than in the fashion of his dress. To have visited a patient in anything but his most formal costume would have shocked his own sense of propriety and would have given the patient serious misgivings as to the correct professional standing of his medical attendant. It is a part of the general change of manners that gives medical men to-day a far wider freedom in this matter. The world takes nowadays a more liberal-minded view of these minor questions. The practical convenience necessitated by modern conditions prescribes behaviour. At a time when ladies ride bicycles and smoke cigarettes and when a Royal Princess has satisfied her curiosity and spirit of adventure by travelling outside an omnibus, who will ask the medical man to restrict himself to the frock-coat of rigorous professional propriety? Opinion is more sensible and untrammelled than it used to be, and it is recognised that a man may be an active surgeon or a careful physician even if his coat has no tails to it. In the country, perhaps, professional costume was always more or less adapted to climate and to locomotion. The country doctor did not ride in the faultless attire of his town brother or drive in such "correct" apparel as the latter habitually wore. Now, however, the considerations of practical convenience are allowed full play in towns too, and, as the season demands, the short-coated suit and the straw hat are not altogether taboo. It is right, however, that a medical man should always be careful and quiet in the manner of his dress. He must not allow flashiness to play a part in his costume, and our younger readers will do well to remember that though a freedom is theirs now which was denied to their fathers, still it behoves them to see that they dress strictly as gentlemen should. Better the inconvenient staid limitations of a black frock coat than that a suit only fitted for the racecourse should be worn at the bedside. Even in such comparatively small matters as dress wider opportunities entail proportional responsibility, and the young practitioner of to-day must not forget that POLONIUS's advice in the matter of costume is as worthy to be followed now as it has been for the last 300 years.

Annotations.

"Ne quid nimis."

THE LONDON SCHOOL BOARD AND ITS MEDICAL OFFICER.

IT is a well-known fact in psychology that crowds will, as crowds, do actions which no one of the individual members who compose them would think of doing. In the same manner the London School Board in its corporate capacity acts in a manner in which we do not for one moment believe any one of the individual members would act. The Board's latest piece of work is to dismiss its medical officer in a peculiarly ungracious way. We take the following facts

from an article which appears in the current number of the *Journal of State Medicine*, the editor having courteously favoured us with an advance proof. This journal is the official organ of the Royal Institute of Public Health, of which body Dr. Smith is also the President, so we may take it that the statements contained therein are authenticated and they are borne out by quotations from the minutes of the meetings of the School Board. The facts are these. In 1890 Dr. Smith was appointed as medical officer on probation to the Board on the understanding that he was to be debarred from private practice and that he was not to be allowed to hold any appointment which interfered with the proper performance of his duty to the Board. In May, 1890, two months after the appointment, Dr. Smith wrote to the Board intimating that if he was required to give "his whole time" in a rigid sense to the Board his position would be untenable. On this letter the Board took no adverse action. In fact, on May 15th, 1890, the Board decided that Dr. Smith might continue to hold two offices outside the School Board—namely those of medical officer of health of Woolwich and the professorship of State medicine at King's College. In 1899 the General Purposes Committee of the School Board offered to increase Dr. Smith's salary from £600 to £800 per annum on condition that he gave up the medical officership of health of Woolwich. In view of the impending changes to be brought about by the Act for the local government of London this proposal was suspended, and eventually the School Board offered a salary of £800 per annum on condition that all appointments were given up except the King's College professorship. Dr. Smith declined to accept this offer and the School Board then passed the following resolution:—

"That the resolution increasing the salary of the medical officer from £600 to £800 be rescinded; that Dr. Smith be called upon to resign all his paid professional appointments, with the exception of his lectureship on medical jurisprudence in King's College; and that, failing his consent to these conditions, six months' notice be given to Dr. Smith for the termination of his appointment."

This resolution was passed by the Board on July 25th, 1901. We consider that the School Board has acted in an unfair manner. To begin with it never should have allowed Dr. Smith to hold the appointment of medical officer to itself and other appointments too, especially such an arduous one as that of medical officer of health of Woolwich. It is absolutely impossible for any man to hold satisfactorily two such appointments as that of medical officer of health of a district which had in 1899 a population of 107,324 and that of medical officer to a body responsible for about 500,000 children. In addition to his medical officership of health Dr. Smith was public analyst, and in addition to his professorship he is director of the King's College laboratories of State medicine. But the Board having winked at what must have been a dereliction of duties had no right to go back on itself. The medical officer to the London School Board should be a competent man, he should have a salary of £1000 per annum, he should be required to give his whole time to the duties of his post, and he should be responsible for signing certificates for non-attendance. He ought to keep an eye on the sanitary condition of the schools, the condition of the children, and the health of the teachers. It should also be impossible for him to be able to be dismissed by a body the composition of which changes every few years and the members of which are popularly elected. The persons in whose hands his dismissal should rest are the members of the Education Department. We do not for one moment consider that Dr. Smith should have been allowed to hold such a number of posts that he could not possibly carry out the duties entailed thereby, neither do we think it fitting that panegyrics upon himself as a public servant should appear in the journal of the Committee of which he is a member—e.g., "We venture to assure Dr. Smith of our sympathy with him and our respect for the dignified position he has taken"—but none the less the Board has acted in a mean, reprehensible manner.

DEATH OF A CENTENARIAN.

MRS. ELIZABETH HANBURY, of Richmond, Surrey, died on Oct. 31st, aged 108 years and four months. She was the youngest child of Mr. John Sanderson, who had a warehouse in St. Mary Axe, and she was born in Castle-street, in the parish of St. Alphege, London-wall, on June 9th, 1793. In 1826 she married Mr. Cornelius Hanbury and thenceforth lived for a long time at Stoke Newington in North London. Mrs. Hanbury was a member of the Society of Friends, spoke at the meetings, and was an acknowledged minister. Among the numerous philanthropic and charitable movements which occupied much of her time and energy the visiting of prisoners in Newgate (in conjunction with Mrs. Fry), the visiting of convict-ships, especially those for females, and the work of the Anti-Slavery Society held the foremost place. She was able to read and to write even when over 100 and to go from one room to another of her house when over 107. Mrs. Hanbury has left a son, Mr. Cornelius Hanbury, chairman of the firm of Allen and Hanburys, Limited, an old-established City firm of pharmaceutical chemists. A notice of Mrs. Hanbury, together with a portrait taken on her hundredth birthday, are contained in a recently published autobiography of her daughter, the late Charlotte Hanbury, edited by Mrs. Reid. The funeral took place on Nov. 5th in the Friends' burial ground at Wellington, Somerset.

THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

THERE is no need here to remind our readers of how much this Fund has done and is doing for the sick poor of London; but, as in every other organisation for helping others, money is required. It was the hope of the Royal Founder of the Fund—now His Majesty the King—that the resources of the London hospitals should be increased by £100,000 a year. Although this hope has not been realised, yet it is hoped that £50,000 a year has been found, and thus another £50,000 a year remains to be gathered in by some means. The organising committee of the fund, through their chairman, Viscount Duncannon, have suggested that the freeing of the hospitals from debt would be a most acceptable coronation gift to the King and have issued an appeal to this effect. The appeal is being sent to the press, to factories, and to offices. We have every satisfaction in endorsing the appeal, for the London hospitals are kept going by purely voluntary gifts whether in land or in money, while the senior members of the staff either give their services for nothing or else for a few pounds per annum which are paid to them more for administrative reasons than for any other. Of our two oldest hospitals that of St. Bartholomew was founded by an ordinary citizen attached to the Court and afterwards was supported and served by the Augustinian Brothers of the Priory of St. Bartholomew, while St. Thomas's Hospital arose from the Priory of St. Mary Overy, served by brothers of the same order. Guy's Hospital was originally the creation of one man, and thus our endowed hospitals owe nothing to the State or to municipal rates for their funds. Our hospital system is the people's own; it is kept up by private donations and subscriptions; it reflects both the high regard the country has for the sacredness of human life and the sympathy the people feel for its care. In such a city as this, where life teems in restricted areas and throbs in complicated activities, dangers are always threatening the healthy,

and the terrible wear and tear, the stress and turmoil of competition, make deep inroads on the public health. It must be counted to the city's good that the awful fact of suffering is *voluntarily* met by the best surgical and medical knowledge and by nursing accommodation which men, women, and children may promptly claim. To those who take their corporate responsibility seriously these are grateful facts. £50,000 a year: it is at once a large and a small sum. It is about the income of the weekly cost of the war and about one-fortieth part of the sum compulsorily paid in rates to the School Board. But it is not much for London to find, and yet should London be asked to find it all? A great proportion of the patients at a London hospital come from the country; many of them are genuine cases of illness and some are not. We remember one patient who made fortnightly trips to a London hospital from Peterborough for a pint of cod-liver oil. But a London hospital is really a national institution and we think that the appeal might be made to a wider area than that of the metropolis alone. To intending donors we would point out that the fund is admirably administered and that a very small portion of the money subscribed goes in expenses or salaries.

THE PRESERVATION OF DEAD BODIES BY FORMIC ALDEHYDE.

THE preservation of dead bodies by some method which will not affect the colour or the pliability of the tissues is a thing much to be desired in the interests both of teachers and students of anatomy as well as of forensic medicine. Such a method has, we think, been found in the vapour of formic aldehyde, and an ingenious apparatus for its application has been devised by Dr. G. de Rechter, a member of the Sanitary Board of the city of Brussels, and his brother, M. F. de Rechter, who is an engineer. The apparatus, which we have had the pleasure of inspecting at the Examination Hall on the Thames Embankment, consists of two compartments, one the disinfecting chamber, and the other which is divided into two for the production of formic aldehyde vapour in the one and of ammonia vapour in the other. The use of this last is to neutralise the formic aldehyde if required. Above each one of the compartments, which are really containers for evaporation over a large surface, is fixed on the outside a sprinkling-receiver containing liquid corresponding for the one part with formalin and for the other with ammonia. These sprinkling-receivers are made in imitation of ordinary oiling apparatus with a visible drop such as those employed in the lubrication of engines. They are air-tight and are provided with an air-tube plunging into the liquid in such a manner as to work at a constant level, and, by means of a screw, the requisite number of drops to be given out per hour can be regulated. From the receiver the sterilising or neutralising liquid falls into a collector, which distributes the liquid uniformly on a number of wicks of plaited cotton, hung vertically so as to spread the substance over the largest possible surface, and with a view of ensuring complete draining. In order to produce the circulation of the air throughout the whole apparatus and to ensure progressive saturation in the sterilising chamber a small electric fan should be placed in the passage conveying the vapours. It goes without saying that during the period of disinfection the air circulates exclusively in the disinfecting and formic aldehyde chambers. The ammonia is only used on the withdrawal of the body or other matter which is being treated. On Nov. 4th we "assisted" in the French sense at a post-mortem examination on the body of a man which had been in the chamber since Oct. 12th. The body had not been touched in any way before being placed in the chamber. The limbs and skin were soft and pliable except on the face, scalp, and the fingers and toes, where the skin was leathery. The brain was somewhat soft but had no disagreeable smell. The intestines, however, and the abdominal muscles showed slight signs of putrefaction, although the smell was slight; the liver, though soft, was of a perfectly normal colour. It must be remembered, however, that this body had been treated by one unaccustomed to the apparatus and had not been kept at a temperature of 12° C. for the first week or so as recommended by MM. de Rechter. The process will be found, we should say, to be of great value both for anatomical and medico-legal purposes, and with regard to the latter point we may mention that experiments have been made with the bodies of animals which had been poisoned by morphine, atropine, strychnine, and arsenic. In no one of these did the formalin in any way prevent the detection of the poisons, but we think that it would be of interest to try an experiment on an animal poisoned with cyanide of potassium or phosphorus. One other use of the apparatus would be in keeping condemned meat for a magistrate's inspection. If put into the apparatus on seizure the meat would undergo no further change. We may add that the agents for the apparatus in Great Britain are Messrs. Thomas Christy and Co., 4, Old Swan-lane, London, E.C.

THE REMOVAL OF PATIENTS SUFFERING FROM ENTERIC FEVER.

AT the Kettering Police-court on Oct. 16th Mr. William Mackenzie, the medical officer of health of Raunds, was summoned for a breach of the Public Health Act by aiding and abetting one Frederick Allen unlawfully to expose himself whilst suffering from enteric fever at Kettering. The evidence given was rather conflicting in some respects. It appeared that Mr. Mackenzie was called in to see a man named Allen—one of his club patients. When Mr. Mackenzie arrived at the house he found Allen up and dressed, but as his temperature was 100·2° F. and his symptoms suggested enteric fever, and as there had been several cases in the neighbourhood, he came to the conclusion that the patient was suffering from that disease. Mr. Mackenzie asked if there was a hospital for infectious diseases in the neighbourhood and was assured that the patient would be admitted; he consequently said that if the patient could be taken into the hospital "it would be a good thing." It was in this respect that the evidence varied, the witnesses for the prosecution stating that Mr. Mackenzie advised the patient to go, Mr. Mackenzie himself stating that he merely suggested such a course and said that if the patient did go it was to be "on his own responsibility." Allen consequently went in a cab to the hospital but was refused admission as he did not belong to the district. The prosecution maintained that Mr. Mackenzie ought to have made further inquiries before giving his consent to the patient's removal and that by using a cab Allen had made himself a source of public danger. When Allen returned home Mr. Pretty saw him and five days afterwards he was removed to the hospital. For some reason Mr. Pretty was not called as a witness. We consider that he should have been, for whether the removal of a patient in a cab was a source of public danger largely depended upon the stage of the disease. From Mr. Mackenzie's evidence the patient was apparently in the very early days of enteric fever, probably not later than the third, and as it has been shown that the pathogenic bacilli do not appear in the stools until the ninth day, and as infection by the breath is of the very rarest occurrence, we cannot consider that there was any danger of infection to the public by Allen's removal in the cab, but Mr. Mackenzie took the further precaution of

having the cab disinfected and could not therefore, according to the evidence given, be said to be guilty of the charge for which he was summoned. After consideration the bench dismissed the case against Allen, but considered that "Dr Mackenzie acted very injudiciously in sending the man to Kettering without first communicating with the medical officer there." But on the evidence they did not feel justified in convicting. We think this is rather hard on Mr. Mackenzie. He was certainly acquitted of the breach of the Public Health Act, and the evidence with regard to the reasons why the man went to the hospital for infectious diseases was, as we have already said, most conflicting.

THE LAY TREATMENT OF ALCOHOLISM.

A CORRESPONDENT has sent us a little four-page leaflet, dated from "The Lodge, Carnoustie, N.B." We learn from this that "Mr. and Mrs. William Mathie who have had large experience in the treatment of alcoholism have opened the above home, where special attention will be given to those suffering from such a condition. ..... The duration of treatment is three weeks, not less, and no restriction as to stimulants is put upon the patient on entering, for as the medicine takes effect the desire for stimulants progressively lessens. The medicine acts directly on the nervous system. ....." An extract from the *Dundee Evening Telegraph* of May 27th, 1901, is given by which we learn that "it is indeed worthy of note that some medical experts have recommended the sending of anæmic young women to the matron for treatment similar to that meted out to other visitors." This statement may mean a great deal more than meets the eye, and we do not believe that any medical expert would send a simple case of anæmia to be treated by a secret remedy. We must confess that we should like to know more about Mr. and Mrs. Mathie and their manager, Mr. Donald F. Cameron.

THE PHYSIOLOGICAL EFFECTS OF COCAINISATION OF THE SPINAL CORD.

Professor A. Pitres and Dr. Jean Abadie of Bordeaux have published in the *Archives de Neurologie* for October a valuable paper based on an extensive series of experiments and observations made by them to determine the physiological and clinical effects of cocainisation of the spinal cord by the method of lumbar puncture. 50 cases were thus studied, the cocaine injection used being a 2 per cent. sterile solution. The following are the chief conclusions reached: 1. The analgesia which follows spinal cocainisation is due to the action of the cocaine not on the spinal cord, but on its posterior roots the conductibility of which is diminished. The analgesic action is, however, somewhat irregular, hence sometimes the anæsthesia begins in the perineo-scrotal region, sometimes in the thighs or feet—i.e., in detached patches which gradually extend and coalesce. The same fact has been observed by M. Tuffier and M. Hallion. 2. The analgesia is thus progressive and after the operation the restoration of sensibility to pain is similarly not uniform. 3. Cutaneous sensibility to pain (pinching or pricking) is the first to disappear, and later the sensibility to heat or cold. Touch may be erroneously localised at this stage (allocheiria). The sense of contact and pressure on the skin is the last to disappear. 4. The touch of clothing, the hand, or metal on the legs or body may be perceived for a long time, and ether falling on the skin and evaporating gives rise to a sensation of warmth, whereas chloroform similarly applied to the skin gives rise to no sensation. 5. Tickling of the soles of the feet is long perceived by the subject but the usual reflex is not provoked. 6. Cutaneous sensibility to touch is the first to reappear, next the sensibility to pressure, next the thermal sense, and lastly, the sensibility to tickling and to pain. 7. In four patients the electric sensibility of the skin (noted before the experiment) was abolished after the injection. 8. Deep sensibility of the muscles, bones, and joints is abolished in proportion to the degree of cutaneous analgesia, and when the latter is complete so is the former. 9. Consciousness of position of the limb is generally preserved during the analgesia, the only exception in the 50 cases being a patient who was tabetic. 10. Deep visceral sensibility (testicular and peritoneal) is never totally abolished, though it may be considerably diminished. 11. The knee-jerks and the tendo Achillis reflexes are always modified by the lumbar injection. In normal subjects they are at first exaggerated and then diminished until the normal degree of reaction is re-attained. 12. Sphincter troubles in the form of paralysis of the bladder or rectum are never produced with the moderate doses of cocaine employed. In a considerable minority of cases erections of the penis were noticed to occur. 13. Vaso-constriction occurs in the analgesic areas and the skin becomes pale and comparatively bloodless, scarcely bleeding when pricked. 14. The skin of the lower limbs and lower part of the trunk remains cold and dry, while the face, upper limbs, and upper part of the body sweat freely after the injection. Professor Pitres and Dr. Abadie further state that after simple lumbar puncture they had never observed epileptoid tremblings, contractures, or fibrillary tremors of the muscles, and that nausea and vomiting were rare sequelæ, but that headache was common and was probably due to the toxic effect of the cocaine.

THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Oct. 30th states that for the week ending Oct. 26th the cases of plague in the Cape Peninsula numbered 2, both Europeans. The cases at Port Elizabeth numbered 4—namely, 1 Malay and 3 natives. For all other places the cases numbered 0. The deaths from plague were as follows: Cape Peninsula, 1, a European; Port Elizabeth, 1, a European; all other places, 0. The area of infection remains unchanged. The cases of plague among persons under naval and military control numbered 2—namely, a private of the 3rd Lancaster Regiment, Greenpoint Camp, and a private of the 3rd Battalion of the Buffs, Simonstown. As regards the Mauritius a telegram from the Governor received at the Colonial Office on Nov. 4th states that for the week ending Oct. 31st there were 77 cases of plague and 47 deaths.

THE EAST SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THIS society celebrated the jubilee of its existence by a dinner held on Oct. 31st at the Eversfield Hotel, St. Leonards-on-Sea. The President (Dr. J. W. Batterham) took the chair and a large number of members and guests were present. Among the latter were the President of the Royal College of Surgeons of England (Mr. H. G. Howse), Mr. W. Allingham, Mr. Howard Marsh, Mr. Edmund Owen, Colonel Brookfield (M.P. for the Rye Division of Sussex), the Mayor of Hastings, and Canon H. B. Foyster. After the usual loyal and patriotic toasts Mr. Howse gave the toast of "The Society and its President." He drew attention to the fact that their society was one of the oldest medical societies in the kingdom and complimented them upon the excellence of their rules and regulations, more especially with regard to those which dealt with ethical relations. Dr. Batterham, in reply, said that their society was founded by Dr. Greenhill and a few others in 1851. There were at first 11 members, now there were 50. Their original library consisted of 57 books, now they had one of between 2000 and

3000 volumes. They had tried, and he thought that he might claim with success, to keep themselves abreast of the ever-increasing flood of medical knowledge. As to the success of their efforts in regard to professional good fellowship he had only to point to the understanding existing between the various medical men in the town. Dr. B. H. Allen proposed "Kindred Societies" to which Mr. Edmund Owen responded, and the last toast was that of "The Secretary" proposed by the President and acknowledged in suitable terms by Mr. L. E. Jowers. The society has done good work not merely in a purely professional sense but in the more public manner of taking interest in, and advising the municipality upon, questions of sanitation and hygiene. Therefore, we congratulate it upon its past record and cordially wish for it many more years of useful life.

SMALL-POX IN LONDON.

THE returns of small-pox up to Wednesday in this week are better than during last week. On Sunday, Nov. 3rd, there were seven fresh cases admitted to the hospitals of the Metropolitan Asylums Board; on Monday, Nov. 4th, there were 15 fresh cases; on Tuesday, Nov. 5th, there were 12 fresh cases; and on Wednesday, Nov. 6th, there were 4 fresh cases.

THE PROTECTION OF NURSE-CHILDREN.

IT is highly satisfactory to know that it is intended to bring under the consideration of Parliament next session a Bill for the better protection of nurse-children. The present Act certainly stands in need of amendment and more especially in respect of the very clauses by which it was made to amend an originally stronger measure. It is generally known that the provisions of the Act for registration and supervision apply only to cases in which more than one child is boarded out and, moreover, to cases in which a sum of less than £20 is paid for each child. For what purpose these conditions were introduced we do not profess to understand. Their practical effect has been to impair in no small degree and for no obvious reason the usefulness of the Act. They serve as gaps in the net through which offenders may freely escape, if only they are sufficiently cunning. The payment of a less or greater sum of money can clearly provide no guarantee for proper treatment if the child should come to be committed to the hands of unscrupulous persons. Neither should the fact of a greater payment entitle the parent or guardian of such a child to dispense with the necessity for registration. This, after all, is the only legal safeguard provided to cover transactions of the kind. Why should the child born in a better condition of life be denied this privilege? Why should exemption be sought for it? There can be no sufficient reason nor can we see any justification for such a course. On the contrary, we recognise an obvious loophole for the evasion of that purpose of justice for which the Act was framed if there is present a desire to evade it. In a recent case of baby-farming at Balham which was investigated under a charge of neglect two infant children were found to have been shamefully neglected and starved, death resulting in the case of the younger. A sum of £40 had been paid down for one of these children and £30 for the other. Obviously the payment of money afforded here no security for the most elementary practice of humanity. No less does the existing law require modification in the interest of single nurse-children. Except for the necessity of obtaining a certificate in the event of death and a medical man to give it such a child is practically without resource unless it be found perchance in a nurse with a conscience. Experience has abundantly proved that such resource has to be well sought for among the women who "nurse" these poor children. We have all along urged the necessity for registration even in the case of a single child and we would respectfully but most strongly urge upon the Government the necessity of treating the whole subject in a thorough and decisive manner. We feel convinced that no Bill can be expected to secure the proper treatment of such nurse-children which does not provide fully and without reservation for their registration and supervision.

TEMPERANCE ADVOCACY IN GERMANY.

THE annual conference of the German "Society for Combating the Abuse of Spirituous Liquors" was opened with a meeting in the great hall of the University of Breslau on Oct. 30th. Baron von Diergardt said that Germany suffered heavily from the incubus of alcohol. Three milliards of marks (£150,000,000) were spent annually in Germany on intoxicants, as compared with 12 milliards spent on food. On an average every member of the population—men, women, and children—consumed in a year 10 litres (2·2 gallons) of pure alcohol, an amount equivalent to 30 litres (6·6 gallons) of spirits. One principal difficulty with which temperance reformers had to contend was the fact that they everywhere encountered persons who were interested in the sale of alcohol. The State itself had a financial interest in this traffic, collecting as it did a revenue of 165,000,000 marks (£8,250,000) from spirits and 100,000,000 marks (£5,000,000) from beer. One-third of the German exports to Togoland and one-seventh of the German exports to East Africa consisted of alcohol. An appeal signed by 42 of the Breslau University professors and teachers has been addressed to the students reminding them of the dangers of over-indulgence in intoxicants and urging them to make a stand against the drinking customs which prevail in universities, especially against competitive feats in beer-drinking and the custom of "Frühschoppen," or morning libations of the same beverage.

PRIMARY TUBERCULOSIS OF THE SPLEEN.

IN the *American Journal of the Medical Sciences* for September Dr. D. D. Stewart points out that tuberculosis—acute or chronic—may manifest itself as a splenic lesion for a greater or less period without signs of the disease in any other organ being manifest. He relates the following case. The patient was a single woman, a nurse, aged 29 years, with a good family history. While recovering from influenza she nursed a man suffering from tuberculosis. She ate irregularly and lost sleep. She became ill and had pyrexia and aching in the back. She had a chill every day, the temperature ranged between 101° and 103° F., and she was thought to be suffering from typhoid fever. On April 18th, the tenth day, she was admitted to hospital. The spleen was markedly enlarged, reaching as high as the sixth intercostal space and being palpable below the ribs. The tongue was clean. Daily examinations of the lungs were negative. The temperature showed morning exacerbations and evening remissions and ranged daily from about 101° to 104°. Repeated examinations of the blood showed the absence of Widal's reaction and of malarial plasmodia. On May 14th two small glands were felt in the left supra-clavicular fossa. Ophthalmoscopic examination showed some congestion of the retinæ. Towards the end of May fine râles were now and then heard in the lungs. In June vomiting occurred daily; she had headache by day and delirium by night. Frequent twitchings of the upper limbs occurred and were accompanied by a harsh cephalic cry. The *tache cérébrale* was well marked. She died comatose on June 15th. The necropsy showed some miliary tubercles in the brain, lungs, liver, and kidneys. The spleen was four times its normal size and studded on its peritoneal coat with elevated yellow tubercles of the size of a large pea. On section the whole organ was found to be a mass of tubercles varying in size from a pin-point to four

millimetres in diameter. About one-half of the spleen had been converted into a caseating mass. The advanced tuberculosis of the spleen, as compared with other organs, causes Dr. Stewart to regard the case as one of primary tuberculosis of the spleen. Scharold has recorded the case of a convict apparently in good health and employed in out-door work who was suddenly seized with symptoms of an acute general infection.[1] There were high fever, headache, cough, epistaxis, diarrhœa, delirium, and general cyanosis. The spleen was greatly enlarged. Death occurred on the seventeenth day. The necropsy showed miliary tuberculosis limited to the spleen. Cases of presumed chronic primary tuberculosis of the spleen have more commonly been observed than acute cases such as those just described.

ST. THOMAS'S HOSPITAL: CONSECRATION OF THE CHESELDEN LODGE OF FREEMASONS.

THE consecration of the Cheselden Lodge, No. 2870, took place in the Governors' Hall of St. Thomas's Hospital on Monday, Nov. 4th. The Most Worshipful Grand Master the Duke of Connaught and Strathearn, K.G., who is the President of St. Thomas's Hospital, had signified his intention of being present at the ceremony of consecration and of performing a most important part of the ceremony himself. Most unfortunately, however, for the founders of the lodge and their guests a dense fog prevailed, which rendered it impossible for the Duke of Connaught to reach the place of meeting and a message by telephone was received to say that he could not come. In his regrettable but unavoidable absence the ceremony of consecration was most impressively carried out by V. W. Bro. E. Letchworth, F.S.A., Grand Secretary, assisted by the following Grand Officers: W. Bro. Clement Godson, M.D., P.G.D. (as S.W.); W. Bro. Alfred Cooper, F.R.C.S., P.G.D. (as J.W.); V.W. Bro. Sir Borradaile Savory, Bart., Grand Chaplain; V.W. Bro. W. C. R. Bedford, Grand Chaplain; V.W. Bro. Frank Richardson, P.Dep.G. Registrar (as acting D.C.), assisted by W. Bro. Fitzroy Tower; W. Bro. Woodhouse Braine, F.R.C.S., S.G.D. (as I.G.); and W. Bro. W. Walmsley-Little, Mus. Doc. G.O. There was a very large and distinguished gathering, both of Grand Officers and of well-known members of the medical profession and others interested in hospitals in general and St. Thomas's Hospital in particular, including R.W. Bro. the Lord Mayor, P.G.W.; R.W. Bro. the Earl of Templetown, Grand Senior Warden; R.W. Bro. F. S. W. Cornwallis, Grand Junior Warden; R.W. Bro. G. Richards, D.M.G. Transvaal; R. W. Bro. Colonel John Davis, Provincial Grand Master of Surrey; and W. Bro. Sir W. Mac Cormac. Doubtless the fog was responsible for keeping many others away, but despite the weather the attendance was very large. The officers of the Lodge are as follows: W. Bro. Thomas Wakley, Jun., L.R.C.P. Lond., P.P.G.D., Surrey, Worshipful Master; V.W. Bro. Alderman W. Vaughan Morgan, P.G. Treas., I.P.M.; Bro. H. H. Clutton, F.R.C.S., Senior Warden; W. Bro. G. Crawford Thomson, M.D., Junior Warden; Bro. Sydney Phillips (Steward of St. Thomas's Hospital), Treasurer; Bro. Charles R. Box, M.D., F.R.C.S., Secretary; Bro. W. S. Colman, M.D., F.R.C.P., S.D.; Bro. T. G. Nicholson, M.D., J.D.; W. Bro. Samuel Hague, M.D., P.P.G.D.C., Middlesex, D.C.; W. Bro. L. A. Bidwell, F.R.C.S., I.G.; W. Bro. H. J. Prangley, M.R.C.S., L.R.C.P. Lond. and W. Bro. W. H. Lawrence Copeland, M.D., Stewards. At the conclusion of the ceremony the brethren made their way as speedily as the fog permitted to the Trocadéro Restaurant, where the banquet was held, the number of members and their guests amounting to about 120. V.W. Bro. the Grand Secretary, in responding to the toast of "The Consecrating Officers," mentioned that he had that morning seen the M.W. Grand Master who had said that he was looking forward with pleasure to the meeting that evening; and it was most unfortunate that the density of the fog had rendered it impossible for His Royal Highness to reach St. Thomas's Hospital in order to carry out his intention of being present. The Worshipful Master, in replying to the toast of his health, which was proposed by V.W. Bro. Vaughan Morgan, gave a few particulars concerning the name of the Lodge. The Hospital Lodges which preceded it had, he said, followed no uniform plan with respect to their names. Some—St. Mary's practically and classically, and Middlesex and London absolutely and in the vernacular—had very naturally adopted the actual names of the hospitals. They had been precluded from following such a course, for they had found that there was already a St. Thomas's Lodge in existence—a St. Thomas's Lodge, moreover, which was very closely connected with St. Thomas's Hospital. This Lodge held its meetings at Tibshelf in Derbyshire, on an estate (in a colliery district) which was one of the hospital's most valuable properties, the hospital authorities being Lords of the Manor, and the greater part of their possessions there having been derived under a Charter of Edward VI., and having belonged to the ancient hospital of the Savoy. St. Bartholomew's, the pioneers of modern Hospital Lodges, had taken the name of their great founder Rahere, and Charing Cross had taken the very appropriate and pleasing name of "Chère Reine" in double allusion to Queen Eleanor, one of whose crosses was erected at the village of Charing, and to our late beloved Queen Victoria, who was their patroness. The Founders of the Lodge, which had been that day consecrated, had called their Lodge after the name of an illustrious anatomist and surgeon, William Cheselden, the introducer of the operation of lateral lithotomy, who was a member of the medical staff of St. Thomas's Hospital from 1718 to 1738. He (the speaker) had been endeavouring to discover whether Cheselden was a Freemason, but was unable to arrive at any definite conclusion. He had, however, in the course of his inquiries, had his attention directed to a trustworthy record of Sir Robert Clayton (who was President of the hospital in 1691) having summoned a Lodge of his Brother Masters to meet at St. Thomas's Hospital in 1693 to advise the Governors as to the best design for rebuilding the hospital, and of a Lodge in connexion with the hospital having continued long afterwards. So they had done no new thing that day in holding a Masonic Lodge in St. Thomas's Hospital. They had but renewed an association after the lapse of 200 years. Although Cheselden perhaps had not been associated with Freemasonry in the past he hoped that they would be able to win for the Cheselden Lodge—and so for his name—a reputation as honourable in Freemasonry as he won for himself in surgery and anatomy. The Worshipful Master in proposing the toast of "The Officers" took the opportunity, having previously referred to the great assistance that had been so willingly given by the Immediate Past Mast. V.W. Bro. Vaughan Morgan, of calling attention to the invaluable services that had been rendered in the Foundation of the Lodge by Bro. Clutton, Bro. Crawford Thomson, Bro. Sydney Phillips, Bro. C. R. Box, Bro. Colman, and Bro. Nicholson, the work of the Secretary being particularly arduous and responsible, though all had lent themselves devotedly to the work. An excellent programme of music under the superintendence of the Grand Organist, W. Bro. W. Walmsley-Little, enhanced greatly the pleasure of the evening, the only regret being that owing to the length of the proceedings and the delays due to the fog some of the items had unavoidably to be omitted. It should be added that H.R.H. the Duke of Connaught was graciously pleased to honour the Cheselden Lodge by becoming its first honorary member.

[1] Aerztliches Intelligenz-Blatt, August 7th, 1883.

THE REPORT OF THE DEPARTMENTAL COMMITTEE ON FOOD PRESERVATIVES.

So far as we can ascertain this report has not yet been made public, although it is said that it was placed upon the table of the House of Commons some time ago. Yet we doubt whether any subject in home affairs presses more urgently for definite legislative action than that relating to the use of preservatives and colouring matters in food. Mr. Chaplin, in the House of Commons on July 26th, 1900, held out the hope, pending further experiments by the committee, that their report would be presented by the end of the year (1900). The committee were appointed in July of the previous year, over two years ago, and we have consistently reported their proceedings in our columns since that time. The last notice we published of these proceedings was in THE LANCET of Oct. 6th, 1900 (p. 1024), when we were able to state that the committee before pledging themselves to a definite conclusion were anxious to collect information abroad as to the use of antiseptics in food and their control, and that for this purpose some of the members of the committee had visited Denmark and Ireland. There has, therefore, been a clear year from that date to the present during which a report might have been published. The result of this unnecessary and vexatious delay—for we can see no reason for it—has been to interfere seriously with the efficient administration of the Acts which provide for the supply of pure and unadulterated food. These questions magistrates and counsel alike have maintained cannot be decided until the decision of the experts appointed by the Government is known. We are still without this report, and accounts of impotent proceedings to stop the use of preservatives in food still appear from time to time in the daily papers. This is a most unsatisfactory position alike to the trader and to the public. Those, however, whom legislation on this subject most intimately concerns will perhaps have noticed a significant incident in the proceedings of a case reported recently. It appears that one of the members of the Departmental Committee appointed to inquire into the use of preservatives and colouring matters in food was ready to be called for the defence in a case in respect of the use of boric acid in butter. Now, unless there proves to be a dissentient opinion or a minority report in the recommendations of the committee it is pretty evident from this that under some conditions at any rate the use of preservatives, or certain of them, is to be countenanced. We trust that the report, if it has been placed upon the table, will be published without further, and as it seems to us quite unnecessary, delay.

THE FIRST SUSPECTED CASE OF PLAGUE IN LIVERPOOL.

WE have received the following report of the first suspected case of plague in Liverpool from Dr. William Alexander, surgeon to the Liverpool Workhouse Hospital. A youth was admitted to the medical wards of the workhouse hospital with high temperature in the early part of October. It was subsequently discovered that he had strained himself in playing football. On examining the groin a number of enlarged glands were found. The traumatic nature of the disease was accepted; and as the temperature rose to a very high degree and the glands became still more swollen he was transferred to the surgical wards, where Dr. Alexander cut down upon the swelling and removed four or five enlarged glands. He was struck by the amount of œdema around the glands, also by the absence of suppuration and by the dark grey surface exposed when the glands were cut. The bacteriologist (Dr. A. S. Griffith), who was present at the operation, was requested by Dr. Alexander to examine the glands in order to ascertain what microbes were the cause of the disease, Dr. Alexander remarking at the time in a jocular manner that it might be a case of plague. Dr. Griffith made the requisite investigation and found the pathogenic organisms, and there is very little doubt that the case was one of plague. The patient died 24 hours afterwards and Dr. H. Peet, one of the house-surgeons, who made the post-mortem examination, reported that he only found the results produced by high temperature without any other serious lesion. No source of infection could be found to account for the disease, and although a great many people were exposed to contact with the patient whilst in the hospital no other case has since arisen. This case shows how insidious a disease plague is and how difficult it is to guard against early cases when there is no suspicion that the disease is in the neighbourhood.

THE INCORPORATED SOCIETY OF TRAINED MASSEUSES.

MASSAGE when practised by competent persons acting under the immediate supervision of members of the medical profession plays an important part in the treatment of a variety of complaints. On the other hand, the experience of most countries has shown that several serious evils are certain to ensue when irresponsible persons are allowed to advertise themselves as prepared to apply massage to patients. Many of our readers will therefore be pleased to hear that a number of ladies have formed a society which holds periodical examinations in the theory and practice of massage, and the successful candidates, after signing a declaration that they will conform to the rules, receive the certificate of the society and their names are placed on its roll as certificate-holders. Certificate-holders over the age of 21 years are eligible for election to be members of the society. The objects of the society include the following points: (1) to improve the status and training of masseuses; (2) to provide for the holding of examinations and the granting of certificates of qualification; (3) to establish a registry; and (4) to arrange lectures, to provide a reference library, &c. All members, associates, and certificate-holders are required to abide by the following rules: (1) not to undertake any cases of massage except under the direction of a registered medical practitioner, and in regard to massage for men to act in accordance with the by-laws of the society; (2) not to advertise in any way whatever except in recognised medical papers; and (3) not to sell goods to patients in a professional capacity. The movement has received marked support from the medical profession, upwards of 70 of the members of which, including several medical ladies, have expressed their approval of the aims and principles of the society. The society neither fixes nor controls the working fees of its members. Its offices are at 12, Buckingham-street, Strand, London, W.C.

SMALL-POX AND VACCINATION IN PHILADELPHIA.

LIKE London the city of Philadelphia is troubled with a small-pox epidemic which is scattered in all directions, though there are a greater number of cases in the north-western districts. According to the Bureau of Health there were up to the middle of October 376 cases of small-pox; 205 cases were still under treatment and there had been 48 deaths from that disease. Dr. Martin, who had been attending many patients, had himself contracted small-pox. So far this is but a small epidemic as compared with that of 1871–72 when there were no less than 15,629 cases and 4453 deaths. But since that date the acceptance of vaccination at Philadelphia has been almost unanimous. It is said that the small-pox was introduced by some negro labourers who came from the South, while others attribute the mischief to returning troops from Cuba and Manila. The fact is that at present small-pox prevails in a great

many towns both of Europe and America. During the first six months of the present year 1680 cases were reported in New York city, but good hopes are entertained of ability to cope with the evil. In 1871–72 at Philadelphia, out of 15,629 cases 13,252 were treated in their own homes. To-day practically all the patients are removed to the hospital. Then the Board of Education has issued instructions to exclude from all public schools children who cannot show good vaccination marks. President Good, of the Bureau of Health, has publicly declared that the hospitals contain only two classes of patients, those who are unvaccinated and those who were only vaccinated in their infancy and so long ago that the protection has partially or completely worn away. Not a single patient had been admitted who had been recently and successfully vaccinated. As a case in point, President Good mentioned a father, mother, and six children who were admitted to the small-pox hospital. The parents were vaccinated in infancy and as the protection had somewhat diminished they had a mild attack of varioloid. Their four youngest children were unvaccinated and they had unmodified small-pox. The two other children having reached the school-age were vaccinated before they could be admitted to the school. They were the only members of the family who did not take the small-pox, though they were freely exposed to the infection for about four weeks. A few parents are now being prosecuted for not sending their children to school, the fact being that these children had been refused admittance to the schools because they were not vaccinated. But these are isolated cases—the immense majority of the population are eagerly seeking the protection which vaccination affords, and it is estimated that within the last few weeks 150,000 persons have been vaccinated in Philadelphia. The daily average output of vaccine tubes by the Bureau of Health is 5000, and the latest advices record that the epidemic is decreasing.

THE annual dinner of the staff and present and past students of the Royal Dental Hospital of London will be held on Saturday, Nov. 23rd, at the Hotel Métropole (Whitehall Rooms) under the presidency of Mr. W. H. Woodruff. Gentlemen either now or formerly connected with the hospital or medical school who may through inadvertence not have received special notice, and who desire to be present, are requested to communicate with the Dean at the Royal Dental Hospital, 32, Leicester-square, London.

A LECTURE will be delivered by Dr. H. E. Leigh Canney, at 3 P.M. on Tuesday, Nov. 12th, at the Royal United Service Institution, Whitehall, S.W., on Typhoid, the Destroyer of Armies, and its Abolition. The lecture will be followed by a discussion in which it is hoped that the subject will be also specially considered in its bearing on transport and the responsibility of officers generally. The chair will be taken by Sir William Broadbent.

THE fact that the King, on the occasion of the visit of their Royal Highnesses the Duke and Duchess of Cornwall and York to His Majesty's dominions beyond the seas, has been pleased to approve of the honour of Knighthood being conferred by His Royal Highness upon Dr. James Graham, Member of the Legislative Assembly of the State of New South Wales, Mayor of the City of Sydney, has been gazetted.

THE annual general meeting of the Royal London Ophthalmic Hospital Guild will be held on Monday, Nov. 11th, in the board-room of Moorfields Hospital, City-road, E.C., at 3.30 P.M., Adeline, Duchess of Bedford, in the chair. After the meeting the hospital will be open for inspection by members of the Guild, and the committee will cordially welcome the presence of any friends invited by the members.

BY permission of the Duke of Westminster, a public meeting will be held at Grosvenor House, Upper Grosvenor-street, W., at 3.30 P.M., on Wednesday, November 20th, under the chairmanship of the Right Honourable the Earl of Meath, to promote the objects of the Coal Smoke Abatement Society.

THE second annual dinner of the Otological Society of the United Kingdom will be held on Monday, Dec. 2nd, at the Café Monico, Shaftesbury-avenue, at 7 for 7.30 P.M. The President, Sir William Dalby, will be in the chair.

PAPERS which should lead to an interesting discussion on the various aspects of small-pox will be read at the Hunterian Society on Wednesday next, Nov. 13th.

THE REPORT OF THE NAVAL DIETARIES COMMISSION.

(FROM A CORRESPONDENT.)

"When sailors lived on mouldy bread and lumps of rusty pork,
No Frenchman dared his nose to show between the Downs and Cork;
But now that Jack gets beef and greens, and next his skin wears flannel,
The *Standard* says we've not a ship in plight to keep the Channel."
—G. O. TREVELYAN.

THE student of dietetics who takes in hand the recently issued bluebook (Cd 782) on "Navy Rations" cannot but compare it unfavourably with C 9166 of 1899 on "Prison Dietaries." In the first place it does not think his thoughts or talk his language; probably that is because the Committee were made up of six laymen and but one medical man, while the earlier committee had three experts and but one layman; and secondly, there is very little of scientific method about the report. The report boasts that investigations of nutritive values have been neglected, and, apparently unhelped by science, from a mass of gossip and opinion stated the Committee have managed, with the proverbial luck—which is only another name for the sagacity—of the smart sailor, to evolve, without telling us how or why, a very good new scheme of diet which only requires a little further definition to make it an ideal diet for the navy in peace time. As to war time, it is less certain and information would be welcome from the laboratory of the Royal College of Physicians of Edinburgh or from other authority as to the composition and force value of the preserved and salt meats which are to be the food of the seaman when his day of action comes—when we want him most, and when the canteen on board is closed or empty, and only the service ration is available to feed his stomach for the fight.

The first and most obvious subject for inquiry is the meaning attached by the members of the Committee to the word "real." They twice state that "no real dissatisfaction in regard to the present navy ration exists," but they record that "a generally expressed wish of the men was that more potatoes should be supplied"; so it seems that "a generally expressed wish for change" does not appear to the Committee to be the result of "real dissatisfaction" with things as they are. "Real" here seems to mean "intense," "bordering on the mutinous." Again, biscuit is one of the articles of the ration for savings in which a man gets less money than the article costs (p. 70), yet though the savings price is against the sailors the Committee tell us (Appendix I., p. 50) that the men save 94·7 per cent. of the biscuit; they only take up and eat 5·3 per cent. of this form of food in regard to which (p. 17) it is said that "no real grounds of complaint exist." What a pity the Committee did not tell the unreal grounds of complaint if they probed deep enough to find them out from shy or suspicious witnesses. It is to be presumed that the relation of the "handy man" to navy biscuit is that of the poet to Dr. Fell:—

"The reason why I cannot tell:
I do not like thee, Doctor Fell."

Speaking of Appendix I. two puzzles most difficult to solve may be mentioned:—1. Why were the gunnery ships (p. 48) though always in harbour supplied with biscuit only but no bread? 2. How did the men in the boys' training ships (p. 51) manage to save 121 pounds of preserved potato out of the 115 pounds allowed them? And how does 121 come to be 100 per cent. of 115? There is another curious question as to the meaning of phrases or the accuracy of printed statistics. "Preserved potato is very seldom taken up" (p. 19)—10 per cent. only (p. 51). Again on p. 17, "Soft bread is very seldom taken up." This time p. 50 shows that 44 times in 100 is counted by the Committee as "very seldom," a phrase to which they have clearly attached a private interpretation.

The position, then, as stated in the report (which is of course based on the statistics in the Appendix) and in the statistics, appears to be that the men will scarcely touch the biscuit "in regard to which no real grounds of complaint exist," but that they seem to have a considerable fancy for the bread which "is very seldom taken up." Do the Committee whose report and statistics have led to such opposite conclusions merit our blind confidence? Any man-o'-war's man will tell us that the first improvement he wants in the ration is fresh bread at sea. If not, why are ships lying in harbour abroad so anxious to send fresh bread off to the lower deck messes of a favourite or popular ship as it is seen coming in after a sea cruise? They all want bread at sea in lieu of biscuit; it may be that they cannot have it, but the report gives little evidence that the Committee have faced the question fairly. Bread is issued at sea to the French and German navies and bread has been baked at sea for the men in small craft in our own navy. Was it not Lord St. Vincent who said that anything could be done on board a ship? And now that biscuit is to be packed in tin-lined cases so that it will not deteriorate, the force of the argument of the Committee against the issue of bread at sea owing to the consequent waste of unused biscuit is greatly weakened.

No remarks are made by the Committee on refrigerating chambers in ships, though our navy profited much by them in Manila and Taku through the kindness of the American admirals. I hear that small refrigerating chambers are being built into the newer battleships.

The Committee are quite content with the salt-preserved meat supplied in the sea ration (which, be it remembered, is also the war ration), but surely salt beef, excellent as is the meat supplied to the service when killed, is a little behind the age now. Even if it were lightly corned at Deptford, and then tinned, a more satisfactory ration could be produced.

There is no reference made in the report to the food of men landed from their ships in war. Officers who have recently served in China and South Africa condemn the service ration, in the absence of associated vegetables or condiments, as intolerably unpalatable, and recommend some form of Maconochie's ration—beef and peas, &c. The Russians had a somewhat similar ration in China and were supposed to have more tasty food than our people. Sapidity is of great importance, and it is also of importance that as many of the constituents of the meal as possible should be in one tin to save trouble in the bivouac. It is a pity that no means have been discovered to make possible a daily issue of butter or cheese. Cheese is very apt to spoil and butter looks horrid in the tropics; margarine is nearly as good and is less expensive. Sailors have been known to prefer it to butter in the tropics when both were provided free. The only real want in the ration as now recommended is in the fats, and butter is served out daily in the German navy and at specified intervals in the United States navy. The two ounces of jam will make a good substitute and it is well to see the sugar increased.

The alterations of the meal hours are all improvements, but of course they are only to be legalised now, they have been established for years. The changes in meal hours and improvements in the ration may brighten the lot of patients in the naval hospitals.

There is no mistaking the gusto with which the executive officers on the Committee turned from the arid wastes of carbohydrates and hydrocarbons to the really practical question of altering the ship's routine so as to fit in the meal hours of all the reliefs quite neatly. Here they enter into a minute detail which is rather lacking in the more purely scientific part of their report. There was no engineer or marine officer on the Committee, so perhaps it is not surprising that although the "youths" from 16 to 18 years of age who enter on board the *Northampton* have a specially increased dietary, no special feeding is provided for recruit stokers who enter at 18 years of age or for marines who join at the age of 17 years. This is a great want. These youngsters are growing, and besides are probably half starved when they join—indeed, that is in many cases why they join—and the service would get much more good out of them in those very important days of their early recruit drill if they were sufficiently fed. Besides, they would be more contented, would get into less trouble, and would less frequently desert, so some would be saved ruin of character, imprisonment, and wrecked careers.

The only scientific information based on accurate recorded observation about the feeding of the seamen brought forward in the report is in Appendix IV., which tells the amount of food consumed by men at sea when they had a canteen and when they had not. When without a canteen they ate 2·3 pounds a day; with a canteen they ate more than 3·2 pounds. This suggests that there may well be "real dissatisfaction in regard to the present navy ration," which is now practically the same as it was 25 years ago when these observations were made by Inspector-General Walter Reid and when the men obviously desired a ration over one pound a day larger than that provided by the service. By the way, has the Naval Medical Department no later evidence than this to offer us?

Mention of the Naval Medical Department recalls the fact that, according to the statement of the Committee on p. 6, "in ordinary circumstances every officer or man is either victualled in kind, or if the duties he is called upon to perform necessitate his living ashore he is paid an allowance known as 'compensation in lieu of provisions.'" The treatment of naval medical officers on study leave is *extra*ordinary, as they are neither victualled in kind nor are they paid "compensation in lieu of provisions."

The old harbour ration weighed very nearly three and a quarter pounds a day; this was heavier than the ration of any other man-o'-war's man and was most nearly approached by the ration of the Japanese. Foreigners are apt to assert that this great weight of food must unduly tax the digestive energies of our men. They can say nothing against the amount and quality of the work done by the men who receive all this food. The new ration will weigh four pounds. It is not laid down absolutely, variations being permitted on certain points where the further definition to which we referred at the outset is required. If good mutton be issued twice a week the amount of fat in the diet will be satisfactorily increased, and if half of the daily vegetable issue be ordered to be potatoes, or if leguminous vegetables only are allowed to be substituted on a definite scale, the carbohydrates will be always maintained at the high level required. But if the beef were always "trek ox," and if the vegetables were always tomatoes, pumpkins, and cabbage, on the other hand, the diet would fall below what is wanted. (See p. 18: "A generally expressed wish of the men was that more potatoes should be supplied.") In this direction it is to be hoped that the Admiralty will recognise the need for the further definition which we have seen to be necessary. Granting that these regulations, as we have suggested, are brought in, the new dietary will work out as below. The dietary of a convict on hard labour is inserted for comparison:—

—	Seaman's diet.		Convict's diet, per day.
	Per week.	Per day.	
	Ounces.	Ounces.	Ounces.
Proteids	58·58	8·37	6·26
Carbohydrates ...	138·81	19·83	22·63
Fats	25·42	3·63	3·04
Salts	8·89	1·27	1·48

So that the new dietary proposed by the Committee works out well in consequence of their practical sagacity and in spite of their scorn for laboratory investigations.

The dietary may also be expressed in weights of nitrogen and carbon—nitrogen 26·2 grammes, and carbohydrates 305·95 grammes—and if these be compared with the diets of various English workmen, as shown by Dr. Thomas Oliver,[2] it will be seen that the diet now proposed for

[2] THE LANCET, June 29th, 1895, p. 1629.

the seaman is theoretically better than that of any English labourer or even of the Ayrshire shepherd or ploughman. This would suggest that in future, except to supply men with relishes suited to each individual, such as a red-herring for this man and a bloater for that, or for providing fresh bread, butter, and cheese, canteens should soon cease to exist. This new naval dietary is not final, but the present Committee are to be congratulated on the advance which they have promoted in the comfort of the men whose interests, as well as those of the public, were committed to their care.

THE GENERAL MEDICAL COUNCIL: AN OUTSPOKEN VIEW.

A VALUED Irish contributor has sent us the following:—

The present time, when your columns are full of details of the keenly contested election of Direct Representatives, seems to afford a very suitable occasion to discuss the constitution of the General Medical Council.

It is composed of 31 members, 15 from England and Wales, nine from Scotland, and seven from Ireland. As a rule, in Parliamentary representation there is usually some relationship between the population and the number of members, and it must be admitted that on such a basis Ireland is at present over-represented in Parliament. Thus England and Wales, with 495 members, had at the time of the last general election about one member of Parliament to 62,700 of an estimated population; Scotland, with 72 members, had one to about 58,500; and Ireland, with 103 representatives, had one to about 44,200 of an estimated population. If we apply this ratio of representation to the General Medical Council, we find (basing our facts on the last "Medical Directory" and excluding practitioners residing abroad and the naval, military, and Indian medical services) that England and Wales have 15 representatives on the General Medical Council to 23,471 medical men residing within those countries, or one member to about 1564 practitioners; that Scotland has nine representatives to 3569 medical men, or one member to 396 practitioners; and that Ireland has seven representatives to 2575 medical men, or one to about 367 practitioners. The 16 representatives on the General Medical Council from Scotland and Ireland represent numerically 6144 medical men, that is, there is one representative to every 384 practitioners, while in England and Wales there is one member to 1564. To make matters fair, England and Wales should have at least four times as many members on the General Medical Council as she now has—or instead of 15 at least 60. It is probable, however, that to increase the numbers of the General Medical Council would do no good, nor would the present condition of its finances warrant such a course; so if proportionate representation is to have any force, and if England and Wales are to retain their 15 members, then the 16 from Scotland and Ireland should be reduced to four. The first striking peculiarity of the General Medical Council, therefore, is the disproportionate representation of the various parts of the three kingdoms.

The method by which the appointment of the members is carried out is equally anomalous. There are three ways by which a registered practitioner may become a member of the General Medical Council. Firstly, he may be elected to represent some of the corporations (universities, royal colleges, apothecaries' halls, or faculties). Those chosen in this way are the so-called "Corporate Members," and they number in England and Wales nine out of a total of 15, seven out of nine in Scotland, and five out of seven in Ireland. They are elected by the senates or governing bodies of these corporations—a constituency which does not include the graduates or diplomates of these bodies. Secondly, in addition to those Corporate Members who are elected on such a narrow and exclusive franchise, there are other representatives nominated by the King with the advice of the Privy Council. These are life appointments and the holders are practically responsible to no one. There are three Crown representatives appointed from England and one each from Scotland and Ireland, and they are termed the "Crown Nominees." Finally—and this modicum of justice was only gained after a long and keen struggle—there are five members (three from England and one each from Scotland and Ireland) elected directly by the vote of the medical profession. They sit for five years, but are eligible for re-election, and these five gentlemen are styled the "Direct Representatives."

Financially, the General Medical Council is supported by the registration fees compulsorily paid by all members of the medical profession, and yet (contrary to all ideas of modern representative government) they, who supply the sinews of war, are allowed to elect out of a board of 31 members only five to represent them. Such methods of selection of the members of the General Medical Council are totally opposed to all democratic representative principles and also to the feelings, again and again expressed, of the general practitioners of the United Kingdom.

If the mode of election of the members of the General Medical Council is peculiar so is their topographical distribution. Of the 15 members from England and Wales 10 reside in London, five in the provinces outside the metropolis, and Wales has not a single representative at all. In Scotland, of the nine members four reside in Edinburgh, two in Glasgow, one in Aberdeen, one in St. Andrews, and one in Dingwall. In Ireland every one, without exception, of the whole seven members resides in Dublin. Looked at from the point of view of local or topographical representation (the essential element in all modern representative forms of government) Scotland is most fairly treated in its members on the General Medical Council, for not only are the Corporate Members spread over the country, but the Crown Nominee comes from Glasgow, and the Direct Representative from Dingwall in the north. England and Wales have two-thirds of their members from London, but, on the other hand, Cambridge, Durham, Manchester, and Birmingham are represented, and one of the Crown Nominees comes from Leeds. In Ireland there is the most preposterous centralisation of members of the General Medical Council, for not only do the Corporate Members, but also the Crown Nominees and the Direct Representative, all come from Dublin. Thus, looked at topographically, the 414 medical men in Dublin have the whole seven representatives on the General Medical Council, while the remaining 2161 practitioners in Ireland are totally unrepresented on that body. Neither from Connaught in the west, from Munster in the south, nor from Ulster in the north, of Ireland, is there now, or has there ever been, a representative on the General Medical Council. When it is recollected that in population Belfast now exceeds Dublin and that it has the largest medical school in Ireland next to the Catholic School in Dublin, it is surely time that this city should get a representative on the General Medical Council, and that the continued attempt at centralisation in Dublin should cease. Imagine Scotland with every representative on the General Medical Council hailing from Edinburgh and in England and Wales not a member to represent any place but London! Why, one of the chief arguments employed by candidates in their electioneering proceedings, whether when standing for the General Medical Council or the Council of the Royal College of Surgeons of England, is that they do not live in London!

The General Medical Council in its constitution, in the mode of election of its members, and in its tendency to metropolitan centralisation is totally behind the times we live in, and this accounts for the fact that its influence is waning with Parliament and with the nation. It cannot in any sense be regarded as the accredited mouthpiece of the profession, and as a result statesmen pay it no attention. A body more democratically elected, on modern representative principles, must arise before the practitioners of the three kingdoms can hope to have their welfare looked after or their just rights protected.

MEDICAL STUDENTS AND THE LONDON SCHOOLS.

(FROM A CORRESPONDENT.)

THE reduction in the entry of students in the London medical schools is attracting close attention at the present time, and it has occurred to a correspondent of THE LANCET who is interested in this question to analyse the record of registrations of medical and dental students with a view to ascertain whether any explanation of the falling-off may be found in this interesting record.

The following table shows the registrations of medical

and dental students in the divisions of the kingdom respectively for the years 1899 and 1900—the last returns available:—

—	Registered students.			Total.
	England.	Scotland.	Ireland.	
1899	1106	588	274	1968
1900	855	578	274	1707
Decrease ...	251	10	—	261

From this return it will be seen that whilst the number of Irish students has remained stationary and those in Scotland practically so the English students have decreased by the large number of 251.

A further analysis of the preliminary examinations in arts passed by the students reveals some interesting facts, as the following table will show, viz.:—

—	1899.	1900.	Increase.	Decrease.	—
Universities:					
Oxford (responsions, &c.)	23	26	3	—	
Cambridge (previous examination, &c.) ...	120	130	10	—	
Durham	8	6	—	2	
London	215	225	10	—	
Victoria	45	49	4	—	
Wales	1	1	—	—	
Birmingham	0	4	4	—	
Scotch universities ...	292	267	—	25	
Irish universities ...	192	181	—	11	
—	896	889	31	38	Net decrease, 7.
Examining bodies:					
Central Welsh Board	0	3	3	—	
Oxford Junior Local	16	15	—	1	
,, Senior ,,	4	3	—	1	
Cambridge Jun. Local	47	45	—	2	
,, Senior ,,	14	7	—	7	
,, Higher ,,	0	0	—	—	
Oxford and Cambridge Schools examination	16	12	—	4	
College of Preceptors	557	252	—	305	
Scotch Education Department	85	78	—	7	
Preliminary Institute of Scotland	103	143	40	—	
Royal Colleges of Physicians and Surgeons in Ireland	82	93	11	—	
Intermediate Education Board of Ireland	17	18	1	—	
Apothecaries Society	3	1	—	2	
Colonial and foreign	120	142	22	—	
Exempt	13	11	—	2	
Total	1077	823	77	331	Net decrease, 254.
Universities ...	896	889	—	7	Total net decrease, 261.
Other examinations	1077	823	—	254	
—	1973	1712	—	261	

From the above figures it appears that there was a slight diminution (seven) of registrations on university entrance examinations, whilst, omitting colonial and foreign students, there was the heavy reduction of 276 registrations on other examinations. Leaving out of consideration the university senior local examinations and the Central Welsh Board, which are not taken to any extent by the professional students, we come to what may be called the "minimum" examinations, such as the Oxford and Cambridge junior locals, and schools, examinations and the College of Preceptors in England; the Scotch Education Department examination and the examinations of the Preliminary Institute of Scotland; the examination of the Royal Colleges of Physicians and Surgeons in Ireland, and the Intermediate Education Board of Ireland. When the figures of these "minimum" examinations are further analysed it appears that whilst in England there was a reduction of 312 students, in Scotland there was an increase of 33, and in Ireland an increase of 12. What, then, is the explanation of this disparity? The General Medical Council, it will be remembered, decided to eliminate on Jan. 1st, 1900, from the list of recognised examinations, the second-class examination of the College of Preceptors, an examination well known to be the popular entrance to the two professions in England apart from the universities; and whilst it is not intended to argue either that the second-class examination of the College of Preceptors is a good standard of entrance examination or that the General Medical Council are not right in steadily raising the standard of preliminary education, it is submitted that this arbitrary removal of a popular examination from the recognised list without making provision for some other examination to take its place was calculated to affect injuriously the English medical schools by suddenly checking the supply of entries. Further, the "minimum" examinations in the other divisions of the kingdom are left untouched, with the result that they show an increase in numbers, no doubt owing to some English students availing themselves of the opportunity of passing the examinations in those divisions, most nearly approximating in standard to the hitherto recognised "minimum" standard examination in England; but it is not to be expected, and certainly it is not desirable, that schoolmasters should have to send their boys to Edinburgh or Dublin to pass the preliminary examination.

It is said that the College of Preceptors many months ago expressed their willingness to modify their examinations to meet the views of the General Medical Council, and although it is believed that some negotiations have taken place, nearly two years have elapsed and this disability of English medical and dental students has not been removed. It is well-known that the first-class examination of the College of Preceptors is of a much higher standard than the Scotch or Irish "minimum" examinations, and consequently it is one which can never be a popular entrance examination for the professions. If this disparity is not to continue arrangements should either be at once completed by which the College of Preceptors' examination is modified to meet the requirements of the General Medical Council so that its standard shall not be higher for medical and dental students nor yet lower than is required of the "minimum" standard examinations in Scotland or Ireland; or, as an alternative, that the Conjoint Board in England should revive the preliminary examinations in arts formerly conducted by the Royal College of Surgeons of England. Now that the Conjoint Board in England have ceased to require their students to be registered there does not seem to be any reason why they should not go a step further and revert to the old system of conducting their own preliminary examination in arts, not with a view to lower the standard of examination, but in order to prevent the recurrence of what certainly appears to be an ill-considered attempt to elevate that standard in one division of the kingdom only.

THE MIDLAND MEDICAL UNION.

THE annual meeting of the Midland Medical Union was held at the Albert Hall, Nottingham, on Oct. 23rd, Mr. J. G. SHEA, J.P., the President, being in the chair. Letters expressing inability to attend were received from Dr. W. B. Ransom (Nottingham) and Dr. F. Cassidi (Derby).

The PRESIDENT, in a short address, referred to the increase in the work of the union and alluded in detail to matters which had been dealt with during the past year, speaking particularly upon the purpose and scope of the union.

The Honorary Treasurer (Dr. F. R. Mutch) presented his

report which showed the funds of the union to be satisfactory.

The Honorary Secretary (Dr. E. H. Houfton of Shirebrook) presented a report of the work done during the past year, the salient features of which were as follows. The report commenced by a short *résumé* of the inception and foundation of the union, which practically commenced its career at Chesterfield on March 31st, 1900. The report of the first year's work showed that the first efforts made were (1) to try to establish a minimum fee of one guinea for midwifery cases; and (2) to establish a minimum rate for friendly societies of 5*s*. per member per annum for adults and juveniles. In regard to the midwifery question they might say that they had met with conspicuous success, for with the exception of a district in and about Eastwood (Notts) and a few cases involving contract midwifery the guinea fee was now universal throughout the two counties and the only reason why the particular district mentioned was exempt was that one of the practitioners whilst not attending cases for less than this fee himself allowed his assistants to do so. In regard to the contract midwifery question the Union agreed to support any member who cared to apply for the increased rate of payment for these particular cases. Dr. W. C. Rainsbury of Skegby, who held a colliery appointment to the Teversal Colliery Club, commenced to charge the increased midwifery fee and in consequence was threatened with dismissal from his appointment. A deputation waited upon the club committee to point out the reasonableness of the fee and asking them to give the matter their careful consideration. However, they sent Dr. Rainsbury an agreement to sign in which he would bind himself to charge a sum of 10*s*. 6*d*. for members' wives attended by him in their confinements. This he refused to do and in consequence was served with three months' notice. The colliery club then advertised for a surgeon and the Union advertised warning practitioners not to accept the post, and through the courtesy of the editors of the medical journals no more advertisements were inserted from the colliery club. The club, however, managed to secure a medical man who agreed to accept the appointment, but from knowledge which came to the club committee a letter was sent to him asking him to come at once and inclosing him three months' notice; in consequence of this he never came to take up his appointment. The result was that after Dr. Rainsbury's notice expired on June 25th, 1901, the club were without a medical officer. This state of affairs had continued up to the present. Dr. Rainsbury had been attending the club members, their wives and children at private rates. They had been informed that the club had secured another medical practitioner who insisted upon being given the appointment of a neighbouring practitioner as well as that of Dr. Rainsbury under the same club committee—a practitioner who had been asked to accept Dr. Rainsbury's appointment and had refused. This practitioner had received three months' notice from the club, but up to date no medical man had arrived to take up his duties. In regard to the friendly society question no very great result could be recorded up to date. The resolution suggesting a minimum of 5*s*. per member per annum had been rescinded, except in regard to new clubs or clubs changing medical officers, and a sum of 4*s*. had been substituted. But before enforcing this the Chesterfield Branch chose delegates to meet delegates from the Chesterfield and District General Friendly Societies' Council to see if affairs could be arranged amicably. Up to date the Friendly Societies Council had offered a sum of 4*s*. for adult members and 2*s*. 6*d*. for juveniles, but this had not been accepted by the Union and the matter was still under discussion. In regard to other questions which had been dealt with by the Union might be mentioned that of the Butterley Company and their surgeons. In this case the company sought to reduce their surgeons' fees, but on a firm front being shown by the surgeons through the Union the question of reduction was dropped. Several cases of difficulty between clubs and their surgeons had also been settled satisfactorily. Mention might be made of many other questions which the Union had dealt with or which were still under discussion; but in summarising the result of the first year's work of the Union they might state that the most pleasing result was the fact that medical men had been brought together in the meetings of the various branches and that in the discussion and interchange of opinion many old difficulties and misunderstandings had been removed and a more cordial professional feeling between neighbouring practitioners had been established. At the commencement they found a sense of distrust amongst medical men almost universal, but they were glad to state that this was being gradually dissipated; and if no other tangible advantage had been derived the founders of the Union might feel themselves amply repaid for their trouble and work in the fact that they had raised the feeling of *esprit de corps* among the profession in that district.

On the proposition of Mr. W. B. CROSKERY (Eckington), seconded by Dr. W. DUNCAN (Clay Cross), the report was adopted.

On the proposition of Mr. R. NESBITT (Sutton-in-Ashfield), seconded by Dr. RAINSBURY, the following officers were elected: Mr. J. G. Shea, President; Mr. T. Geraty, vice-president; Dr. F. R. Mutch, honorary treasurer; and Dr. E. H. Houfton and Mr. C. J. Palmer, honorary secretaries.

On the proposition of Mr. GERATY, seconded by Mr. R. G. ALLEN (Belper), Mr. G. S. O'Rorke, M.A., solicitor, was appointed general secretary.

On the proposition of the PRESIDENT, seconded by Dr. MUTCH, it was resolved that the following rule should be substituted in place of Rule 4:—

The annual subscription for each member to be 10*s*., payable in advance on Oct. 1st.

On the proposition of Dr. MUTCH, seconded by Mr. W. E. M. WRIGHT, and after hearing observations from Dr. DUNCAN, Dr. H. J. NEILSON (Bulwell), and Mr. R. G. ALLEN, the following motion was carried as an alteration of the rules:—

(*a*) Members are asked to guarantee a sum of five guineas, or multiple of five guineas, so that in the event of indemnity being required the money may be called up in the proportion promised.
(*b*) Subscription to this fund is not compulsory.
(*c*) In case any member should apply to be indemnified from this fund who is not a subscriber to it the granting of relief to such member shall be left with the president and vice-president to decide whether there are special circumstances entitling the member to such relief.
(*d*) The control of this fund shall be left with the council of the union.

Addresses were then delivered by Mr. GEORGE BROWN and Mr. GEORGE JACKSON, candidates for election to the General Medical Council as direct representatives, and after the usual votes of thanks the meeting terminated.

THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH–21ST, 1901.

THE following are some further abstracts of communications made to the above Congress:—

The Passage of CO Gas through the Placenta.

Dr. M. NICLOUX (Paris) referred to the work of Grehant and Guinguard on this subject, in which they had administered a mixture of the gas and air to a dog in gestation. The animal died in 35 minutes, and on examining the blood of the fœtus it was found to contain six times less CO than that of the mother. His own experiments had been carried out on guinea-pigs and he had examined the effects of a whole series of mixtures of the gas with air, varying in proportion from 1 in 10,000 to 1 in 10. From 1 in 10,000 to 1 in 1000 the content of gas in the fœtal blood was identical with that in the maternal, and in both cases was proportional to the amount in the respired air. Above the latter figure the identity disappeared, the blood of the fœtus showing a steadily less and less amount as the quantity of CO was increased. Since the maternal and fœtal circulations were completely independent and no direct passage of CO-hæmoglobin from the one to the other could have taken place, there must have been a dissociation of the CO, and this, he concluded, was effected by the placenta. A similar dissociation was produced by the respiratory organs of a fish which were in every way comparable to the placenta. A carp plunged into a mixture of 120 cubic centimetres of dog's blood charged with CO added to three litres of water, and killed after a variable length of immersion, showed that its blood contained five, six, or even seven times that of the medium in which it had been placed. The respiration of the carp in the mixture did not seem in the least abnormal. It did not appear, however, that Dr. Nicloux had excluded the possibility of another phenomenon, explaining his results

in the two instances cited—viz., the relative affinities of the different media for the gas in question.

The Working of the Lungs Studied by the Plethysmographic Method.

Dr. T. G. BRODIE (London) and Dr. W. E. DIXON (London) demonstrated an air plethysmograph which they had adapted to the record of lung movements during respiration and other variations in volume, an artificial inflation being kept up. The experiments of their first series were directed to a study of the effects of nerve excitation and of drugs upon the bronchial muscles. They had found (1) that the vagus nerve contained both constrictor and dilator fibres to the bronchial muscles; (2) that the sympathetic contained no such fibres; (3) that muscarine, pilocarpine, veratrine, and chloride of gold produced constriction of the bronchi (asthmatic effect); and (4) that atropine, curare, and to a less degree chloroform and ether vapours, caused dilatation of these tubes. In a second series of experiments the changes in blood volume were observed both when air freely entered and in the case of a lobule with the bronchus previously plugged. The lung capillaries, it was found, became distended with blood when the aortic pressure rose, whether this rise had been produced by constriction of systemic vessels or by increased cardiac action. Failure of the heart, as a rule, also resulted in their distension. In asphyxia the lung volume increased during the first stage but gradually declined during the second and third stages. Dr. Brodie and Dr. Dixon were not able to convince themselves that any vaso-constrictor fibres were supplied to the pulmonary vessels and considered the results of previous observers on this point inconclusive since the action of cardio-accelerator nerves had not been sufficiently excluded.

Sensory Nerves to the Diaphragm: their Function in Respiration.

Professor MISLAWSKY (Kasan) cited experiments in which he had found that stimulation of the central tendon of the diaphragm caused an expiratory arrest of thoracic movements. This effect was abolished by division of the vagus either in the neck or immediately above the diaphragm. Further, excitation of the peripheral segment of a divided phrenic nerve produced an expiratory arrest of thoracic movements at the same time that it caused contraction of the midriff. The former effect was no longer seen after section of the pneumogastric nerves. Professor Mislawsky therefore concluded that the diaphragm must receive sensory fibres from the vagus and that they played a similar rôle in respiration to those supplied by the same nerve to the lungs. He had also stimulated the central stump of the phrenic nerve, but had not obtained results differing from those already well known.

The "Negative Variation" in a Nerve and the "Action Impulse."

A most important communication relative to the vexed question of the relationship between the so-called "negative variation" in a nerve and the functional impulse was made by Professor HERZEN and Dr. RADZIKOWSKY (Lausanne). These investigators agreed with Valentin that the two were not one and the same thing but separate phenomena, the first of which accompanied but did not constitute the second. On the other hand, they agreed with Waller that nerves more or less altered were able to manifest the electric change while they were no longer capable of functional activity. To demonstrate their contention Dr. Radzikowsky had made experiments on frogs' nerves slightly anæsthetised or spontaneously dying after removal from the animal. These were described in the *Centralblatt für Physiologie*,[1] and the present communication was supplementary to meet certain objections which had been raised. In the experiments referred to, the sciatic nerve with the gastrocnemius muscle attached was removed from the body, care being taken to sever the peroneal branch of the nerve as low down as possible. The whole was placed on a paraffined layer of cork in a fairly large moist chamber. The sciatic nerve was laid on a pair of Du Bois non-polarisable electrodes connected to an inductorium and the peroneal branch on another pair which led off to a galvanometer. A small capsule containing from two to four cubic centimetres of ether was also brought into the chamber. After a variable time (from 15 minutes to one hour) the muscle ceased to respond, not merely to weak currents sent in from the coil, imperceptible on the tongue, but also to very strong (unbearable) currents. Nevertheless, with each stimulus sent into the nerve in this condition a negative variation in the branch was shown by the galvanometer. The failure of the muscle was not due to any alteration in the motorial end plates because a weak stimulus applied close up to the muscle by a third pair of electrodes at once set up contraction. The anæsthetised or dying nerve was still able to manifest a negative variation while it was unable to respond by the setting up of an action impulse. A further experiment was now brought forward to support the same view. Professor Herzen had destroyed the irritability of a proximal length of the sciatic nerve by the application of chloralose to it. When excited at this part no contraction appeared in the gastrocnemius muscle, but a deflection of the galvanometer nevertheless occurred. Stimulation of any other part of the nerve caused a response in the muscle. An objection had been raised that the deflection was not due to a true negative variation but to an electrotonic effect. There was only one means of setting this aside—viz., to find some mode of exciting the nerve which did not involve the use of an electric current. This was suggested by an experiment due to Professor Borrutau, in which a portion of the sciatic nerve of a frog was exposed to drying till it had completely lost its irritability at the spot exposed. The nerve was then moistened with saline and replaced in the limb, after which the frog was poisoned with strychnine. When the strychnine convulsions came on, the limb in question took no part in the contractions, but if the sciatic nerve was divided and connected up as before with a galvanometer each convulsion was accompanied by a negative variation. Professor Herzen and Dr. Radzikowsky considered that this experiment demonstrated conclusively that an altered tract of nerve is able to allow of the passage of the negative variation, while it is no longer able to transmit a functional impulse; also, on the other hand, that the peripheral irritable part of the nerve propagated the negative variation without entering into activity. The author of this experiment, it was true, drew a different conclusion from it, but while the facts were admitted by both sides time alone would decide which of the two hypotheses was valid.

The Causes of Muscular Fatigue.

Professor F. S. LEE (New York) said that there were two recognised causes of muscular fatigue—viz., loss of substance necessary to contraction, and accumulation of the so-called fatigue products. In his present research he had paid chief attention to the former. Phloridzin was administered to cats for a length of time, the result being that the animals became muscularly very weak, while at the same time, as was well known, a severe glycosuria was established. Single muscles when removed from the body only gave a few contractions, and graphic records of these revealed a condition of pronounced fatigue. This was not due to any direct toxic effect of the substance upon the muscles. The drug, however, robbed the body of carbohydrate material both in the loose form as well as that combined in the proteid molecule. Hence the supposition arose that normal muscular fatigue was associated with loss of carbohydrate from the muscles. This was strengthened by the fact, which he had discovered, that when prolonged phloridzin poisoning was followed by the administration of dextrose the contractility of the muscles was rapidly restored. Various considerations led him to believe that in normally induced fatigue, there was a first stage (simple fatigue) caused by the accumulation of fatigue stuffs, followed by a later stage (exhaustion) due chiefly to the loss of carbohydrate substances. Professor Lee admitted, in the discussion which followed, that he had made no comparison between the degree of fatigue and the output of sugar in the urine, nor had he estimated the content of glycogen in the muscles at different stages. Nevertheless, in the light of the restoring effects which dextrose exerts upon the fatigued and excised heart, as shown by Locke, and in view of Prevost's results with regard to influence of these substances in aiding re-establishment of cardiac action in asphyxiated animals, both of which have been already referred to in these abstracts, it would seem that Professor Lee's views are probably correct.—Professor LEE had also noted, in conjunction with Mr. C. C. HAROLD, that the muscles of phloridzinised animals rapidly passed into rigor after death. But if dextrose had been given before the animals were killed the onset of rigor was considerably delayed. These observers concluded, therefore, that absence of carbohydrate favoured the onset of rigor and

[1] Centralblatt für Physiologie, August 17th, 1901.

that in this particular there was an antagonism between rigor and contractility.

The Action of Alcohol on Muscular Activity.

Professor LEE and Dr. W. SALANT (New York) gave an account of experiments in which they had injected alcohol of varying strength into frogs in quantity proportional to their weights. In each case one gastrocnemius was protected from the influence of the substance, and the work which this was able to perform was contrasted with that of the opposite leg. In quantities of half a minim of 10 per cent. solution per gramme of weight the alcohol had no effect. In larger doses (from one minim to four minims of 10 per cent. solution per gramme) the amount of work was increased sometimes more than 100 per cent., while in still larger quantities exactly the opposite effects were observed. It was uncertain whether the results were due to direct action of the alcohol on the muscle protoplasm or on the intramuscular nerve terminations.

Demonstrations of Instantaneous Micro-photographs of Living and Fixed Muscular Fibres of Hydrophilus.

Professor HÜRTHLE (Breslau) explained attempts which he had made to study the contractile phenomena of muscular fibres by means of instantaneous micro-photographs. At first he had confined himself to living fibres, but later he found it necessary to compare his results with fixed and stained preparations. The photographs were taken partly in ordinary light (exposure, 0·012 second) and partly in polarised light (exposure, 0·024 second). His chief conclusions were: (1) that within the wave of contraction the striation was closer and sharper; (2) that in polarised light a homogeneous band or space preceded the contraction wave, but whether this was due to accumulation of sarcoplasm or to a loss of the power of double refraction in the sarcous substance (a possibility indicated by the appearance of fixed preparations) was doubtful; (3) that in fixed fibres both the transverse and longitudinal striation were more obvious than in the living; and (4) that during contraction the nuclei shortened and became spiny or crumpled. The shortening, however, was an active, not a passive, event, since its extent was not proportional to the shortening of the whole fibre.

The Relation Between the Thyroid Gland and the Parathyroids.

Professor E. GLEY (Paris) said he could not agree with those experimenters who maintained that there was complete independence of function between the thyroid and parathyroid glands. In support of functional association he adduced the following evidence: 1. Physiological.—Whilst some animals survived complete removal of the parathyroids others presented progressive nutritive disturbances similar to those which followed complete thyroidectomy. He had observed this not alone in the dog but also in the cat and in the rabbit. 2. Chemical.—The parathyroids contained iodine just as the thyroid did and the importance of iodothyrin had now been admitted. 3. Histological.—Edmunds had shown that removal of the parathyroids was followed by hypertrophy of the thyroid which revealed itself in an increased vascularity and development of embryonic tissue. With these there was disappearance of the colloid substance, as had previously been observed by Lusena and others. Conversely, extirpation of the thyroids produced alterations in the structure of the parathyroids.

Complete Removal of the Thyro-parathyroid Organs from Dogs Fed on Bromated Fats.

Dr G. CORONEDI (Sassari) gave the histories of two dogs which he had fed on bromated fat for different periods of time before the complete extirpation of the thyro-parathyroid apparatus. The first had been fed on bromated foods for 14 days and had received in all 22·6 grammes of bromine. Soon after the operation mild symptoms characteristic of the removal were seen, but these passed off and the animal regained perfect health, living for 71 days. Towards the end of this period grave symptoms of cachexia supervened, from which it died. The second dog was operated upon in April of the present year. It had been fed on bromated fat for 26 days previously, receiving in all 36·21 grammes of bromine. It also showed mild symptoms in the early period, from which it recovered completely, and was then alive and in perfect health. The parts removed in each case were exhibited to show that the extirpation was complete. A photograph of the second animal was also shown. Dr. G. Marchetti (Florence) had assisted in the investigation, which was not yet completed.

Heterogeneous Thyroid Grafting.

Dr H. CHRISTIANI (Geneva) said that he had previously succeeded in obtaining permanent and functionally useful grafts of thyroid glands transferred from one animal to another of the same species. In his later work he had endeavoured to find out whether effective transplantation might not be carried out between animals of different species, and if so how far apart might the zoological relationship be, without barrier to success. Systematic attempts were made on various vertebrates of different classes, orders, families, genera, species, and varieties. Grafts did not succeed between animals very widely separated in the scale, such as classes and orders; some were successful between families; still more and better grafts were obtained between genera; and almost constant success was achieved between different species and varieties. His general conclusion now was that for successful thyroid grafting the animals need not be of the same species as he had previously supposed. The grafts could succeed even between those of different families. The transplanted tissue in the latter cases, however, seemed to have less vitality.

On Effects of Suprarenal Extract not Hitherto Observed.

Professor J. N. LANGLEY (Cambridge) described the following effects of suprarenal extract not previously observed by others. 1. Secretion of the salivary and lacrymal glands and of various mucous membranes The effect on the salivary secretion was at first accompanied by constriction of the gland blood-vessels, but later by slight dilatation. Suprarenal extract and atropin had a mutually antagonistic influence on this secretion, much like pilocarpine and atropine. 2. An increase followed by a decrease of bile secretion. 3. Inhibition of the contractile movements of the gall-bladder. 4. Inhibition of the cardiac sphincter of the stomach (rabbit) and of the walls of the stomach (rabbit and cat). 5. Slow constriction of the pupil in the dog. 6. Contraction and pallor of the uterus, vas deferens, and seminal vesicles. 7. Dilatation with pallor of the lower end of the rectum and internal sphincter of the anus in the rabbit and slight contraction and pallor in the cat and dog. In nearly all cases the suprarenal extract produced an effect upon a given tissue similar to that caused by excitation of its sympathetic nerve, and in no case did it excite an effect similar to that produced by the cranial or the sacral autonomic nerve, as the case might be, with the possible exception of constriction of the dog's pupil. Notwithstanding, the action upon the tissues appeared to be a direct one and not occasioned through the medium of sympathetic nerve-endings, for after degeneration of the post-ganglionic fibres of the cervical sympathetic in the cat the extract produced its usual effects on the eye, the submaxillary gland, and the hairs of the face. The effects of the extract on salivary secretion and on the cardiac sphincter were demonstrated.

Diffusion Towards the Eye of Substances Injected in the Temporal Region.

Dr. GAETANO VINCI (Messina) said it was recognised as a clinical fact that when small doses of strychnine were injected subcutaneously in the region of the temple they acted on the eye of the same side, increasing the acuteness and enlarging the field of vision. He had therefore made experiments to determine whether soluble substances injected in this way made their way into the eye by a process of diffusion without entering, or before they entered, the circulation. Three series of experiments had been carried out, in the first of which solutions of iodide of potassium or sodium, of salicylate of sodium, and of ferro-cyanide of potassium were employed. The doses ranged from 0·2 gramme to 0·5 gramme dissolved in from two to three cubic centimetres of distilled water. After a period of from half an hour to one hour the rabbits or dogs were killed by pithing and the eyeballs were enucleated. Test reagents—starch solution, chlorine water, or nitrous acid and ferric chloride respectively—were now dropped into the orbital cavity, when the appropriate colour reaction was obtained, but on the injected side only. The colour, however, was limited to the outer wall of the orbital and to the outer half or two-thirds of the globe of the eye. In the second series 0·5 gramme doses of iodide of potassium were injected in the same way, but the eyeballs were opened and calomel powder was strewn in the interior. The mercurous chloride became converted into the iodide in both eyes, but always from four to eight minutes sooner on the injected side. This latter was to him a trustworthy indication that the substance had not entered by way of the general circulation. Dogs were employed for the third series of experiments, the animals being anæsthetised with chloroform and morphine. From 20 to 30 minutes previously to the

anæsthetisation 0·5 gramme doses of iodide of potassium or of salicylate of soda in a few cubic centimetres of distilled water had been injected into the temporal subcutaneous tissue. Hypodermic needles were now inserted through both cornea into the anterior chamber of each eye. The outer ends of the needles were closed with small wooden stoppers. From time to time a drop or two of aqueous humour was allowed to escape and to fall into a little of the appropriate test reagent. As a method of demonstration the results could not have been more brilliant. A positive reaction was invariably manifested on the injected side from three to five minutes before the other. Evidence of the entry in this way of ferro-cyanide of potassium or of atropine or strychnine was not obtained. Dr. Vinci concluded, therefore, that soluble substances injected into the temporal region were able to penetrate ultimately into the interior of the globe of the eye by the simple physical process of diffusion.

Looking Back.

FROM

THE LANCET, *SUNDAY, NOV.* 9, 1823.

Acupuncturation.

MUCH has lately been said of the efficacy of this remedy in various affections; and well-marked cases in which it has been decidedly beneficial, have been published to the world. In rheumatism, trismus, anasarca, it has been tried, and with success. The facility with which it may be used, leads us to hope that this remedy may meet with a trial from many intelligent practitioners, who may give to the profession a fair and important result of their observations. Acupuncturation is a remedy of very ancient date. In the philosophical transactions for 1683, is a notice of a book written by Dr. Ryne, in which an account is given of the pathology of gout, and the various means that the Japanese made use of at that time in the treatment of their complaints, among which is Acupuncturation.

It may not be uninteresting to our readers, to give an account of the various affections in which they employed it, a description of the instrument, and the mode of using it.

"The needle is made long, slender, sharp, of gold, or at least silver, with a wreathed handle.

"It is to be conveyed either by the hand or a little mallet into the part gently, a finger's breadth or more, as the case requires, and to be held there the space of 30 breathings, (if the patient can bear it,) otherwise repeated punctures are rather used. The puncture must be when the party is fasting; deeper in a great than less disease; in old than young men; in grown persons, than in those that are lean and slender; in fleshy parts, than in nervous. The needle is chiefly used in diseases of the head and lower belly, and is applied to the head in head aches, lethargies, convulsions, epilepsy, diseases of the eye, &c. The womb itself may be perforated, (*the Japanese affirm*) and the fœtus wounded, when its motions are enormous, and threaten abortion. In these cases the needle must be applied, whence the distemper arises; to the stronger on the back, to the weaker on the abdomen. When the pulse scarce is perceived, the puncture must be made in the armes, a little besides the veins. The chirurgeons keep by them images, wherein all the places in the body proper for the needle, are designed by marks. The author himself was an eye-witness of the use of this puncture on a souldier, who, being afflicted with violent disorders of stomach, and frequent vomitings at sea, suddenly relieved himself by pricking a thumb's-breadth deep into four different places about the region of his *pilorus*."

Copy of a Letter to Mr. Methuen, from his Gardener.

"*Honred Sir*,—My wif an I have taken the Ian from Winsor. Jenny Cedar has lost her head, the rest of the scrubs are all well. The Oxen are com down to prase the Gods.

From your
humble servant," &c.

What he meant to say was:

Honoured Sir,—My wife and I have taken the influenza. The Virginia cedar has lost its head: the rest of the shrubs are all well. The auctioneer came down to appraise the goods.

THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

FELLOW PRACTITIONERS OF ENGLAND AND WALES,—You are perhaps aware from announcements in the medical journals that I have been forbidden at what seems a most inopportune moment by my medical advisers to take part in public meetings. They do not go so far as to advise me to abandon my candidature, but they counsel some diminution of work. I am in the enjoyment of my usual health and my eye is almost itself again. Still I am bound to respect advice given me by my truest friends, whose names would command the respect of the profession.

The relinquishment of practice would be distasteful to me and altogether beyond the necessities of the case. The only other way in which I can relieve myself of work is by retiring from my candidature for the honourable office of representing you in the General Medical Council. I can do so now without putting the Council to the inconvenience and expense of a separate election.

These circumstances determine me to withdraw from the present contest. I cannot tell you with what reluctance I do so, especially at a moment when questions of great interest to the public and the profession are before the Council, in which I have, as I believe, taken a part representing the general judgment of my fellow practitioners.

Nor can I say how grateful I feel to the profession for its kindness and confidence during the last 15 years and of the continuance of which I have ample testimony on the present occasion. I ask you to accept my best thanks.

The office of a Direct Representative in the General Medical Council, with a constituency of over 23,000, is not an easy one. Many questions present themselves at the Council Board in a very different light from that in which they appear when viewed from a purely professional standpoint. And the Direct Representative has to act accordingly. I ask you to believe that on all such questions I have tried to remember the interests of the profession as well as those of the public, and to harmonise the two.

I have endeavoured to advance medical education, to maintain the standards of professional conduct and to keep the Register pure. That I have erred often goes without saying, but I am sure you will be more blind than critical towards my faults and will give me credit for having tried to maintain the cause of Direct Representation in the General Medical Council, which, after all, even its critics must admit, is the great council of the profession.

With deepest thanks,

I am, Fellow Practitioners, your obedient servant,

25, Highbury-place, N. JAMES GREY GLOVER.

MEETING AT MANCHESTER.

A meeting of the medical profession was held at the Palatine Hotel, Manchester, on Oct. 31st, under the auspices of the Medical Guild of Manchester and the Medico-Ethical Society of Manchester.

The CHAIRMAN (Mr. Walter Whitehead) explained that the meeting was called to hear addresses from Dr. S. Woodcock of Manchester and Mr. Victor Horsley on subjects connected with the forthcoming election to the General Medical Council.

Dr. WOODCOCK said that he would most efficiently discharge his function if he addressed himself mainly to the consideration of one question which had great interest, which had excited a good deal of feeling in the profession, and which, notwithstanding that they had been considering it for so many years, still remained an unsolved problem. He referred, of course, to the midwives question. He must ask their patience while he attempted to explain what his conduct on this question had been and what his attitude was towards it. He went back only to the time of their meeting in Manchester when the opposing forces were ranged in ranks on both sides, when they had a battle royal, and when those of them who were opposed to the legislation promoted by the Midwives Committee certainly won a battle. After that they knew that a good deal had to be done and they in the Lancashire and Cheshire Branch appointed a committee with representatives on both sides of the question and they addressed themselves to drafting a measure which they thought might be generally acceptable. The Lancashire and Cheshire Branch did what it could and the report was accepted by the branch, though he was bound to admit with a minority. The report was introduced later to the Central Council in London and his visits to London had convinced him of the absolute necessity of having some alternative plan to that proposed by the Midwives Registration Committee. Mr. Acland, who was then in the Liberal Cabinet, at that time in power, told him that it was no good just to stand up and say that the medical profession would not have this or that legislation, but they must have an alternative scheme ready to propose because the promoters of the Midwives Bill had secured the ear of an influential portion of the House of Commons, they were supported by people in the very highest social position, and

unless there was an alternative scheme submitted he (Mr. Acland) was afraid that the measure would pass. Further, when he (Dr. Woodcock) arrived at the Central Council in London and began to deal with that question in the Parliamentary Bills Committee he found that Mr. Ernest Hart had exactly the same opinion as that expressed by Mr. Acland. It happened that a sub-committee to consider the amendment of the Medical Acts had just been appointed with Mr. Horsley as chairman, and he (Dr. Woodcock) and Dr. Ritchie from Manchester were members, with Mr. George Brown also. The Parliamentary Bills Committee requested that the committee which had been appointed to consider the reform of the Medical Acts should take into consideration this midwives question and they were asked to draft a Bill which they thought would be acceptable to the profession. They tackled that question and sat many times and paid a good deal of attention to the subject and they thought they were engaged in drafting a measure which would be acceptable to the profession and at the same time safeguard the interests and lives of parturient women in the country. The committee framed rules and called the women who should be registered not "midwives" but "midwifery nurses." The alteration to call them "midwives" was not in any sense their work—that was done for them when the draft left their hands. It was done in the Central Council in London. He opposed that alteration to the utmost. They made it clear that the function of the midwifery nurses should be strictly limited and that they should have imposed upon them nursing duties. The committee went further—they added an appendix which laid down distinctly the conditions under which these women would be obliged to call in medical aid. They also took into consideration that there was a danger from what were called lying-in homes. Dr. Woodcock explained the particular class of lying-in home that was referred, to and said that they held that those institutions had better be brought under inspection. They framed a measure which they thought would not be objected to by the great bulk of the profession. They were told, however, that in that measure they had violated the spirit and the letter of the Medical Acts. If they had done so they had done it unintentionally; they had no idea of doing such a thing, but if that allegation was true they would have to try again, they would have to make an attempt which should be more satisfactory. But all Dr. Woodcock had to say in regard to that measure was that he felt as a mere act of loyalty to his chairman and colleagues that he was bound to support the result of their labours. He must either do that or disregard his principles and immediately trim his sails to catch the passing breeze. While supporting that measure he did not thereby infer that it was perfect. It was possible that some alternative scheme might be better and prove a better safeguard for the interests of the profession and the public, but hitherto he had not seen an alternative scheme which had altogether commended itself to his judgment. There was a scheme which was drafted, as he thought, by Dr. Bedford Fenwick and his medical friends; at any rate, it had the support of a paper called the *Medical Times and Hospital Gazette*, in which he believed at that time Dr. Bedford Fenwick and Mr. George Brown were interested. From that paper he took the following remarks. Writing in praise of their scheme there was this remarkable sentence: "It appears to us that the consequence would be that many medical men would gladly employ nurses so efficiently trained for attendance upon their poor and parish patients knowing that such parturient women would therefore receive every care and attention and that in the event of any abnormality showing itself medical assistance would be immediately summoned." They would see (Dr. Woodcock continued) that according to Dr. Bedford Fenwick and Mr. George Brown any abnormality was to be diagnosed by the nurse. It was the nurse who was to determine when the medical man was to be called in. That appeared to him (Dr. Woodcock) to be the reintroduction of the unqualified assistant in petticoats. He did not think that it was a scheme which was likely to commend itself to the judgment of the profession. Recently they had had the outline of another scheme which was called the Medical Guild scheme. There had been a little discussion as to the paternity of that measure in the press. He did not know himself that it was quite a new-born child. He thought that it was a sort of foundling adopted by the Medical Guild and it did not appear that it was got rid of by its real parent with the idea of avoiding responsibility, but he was generously hiding himself that when the child was more developed he would be able to augment the resources of its foster parent. This scheme was called, "Scheme for the Protection of Parturient Women and their Offspring." It must be understood that any criticism of his was not in an unfriendly spirit. He might say that if any of them had had any experience in drafting Bills they would know that there was a little difference between suggesting outlines and drafting the clauses which might meet with some sort of acceptance by Parliament. He thought that the scheme contained very humane and on the whole very necessary suggestions in the interests of the poor people. As far as the profession went it was a perfectly ideal scheme and he would be glad to see, if that were possible, this ideal realised. The following was the preamble of the Medical Guild scheme: "That in view of the fact that a large share of the mortality and morbidity amongst the parturient women and the newly born of the poorer classes is undoubtedly due to their being attended by ignorant and untrained women, and their not having the services of fully-qualified medical practitioners, the guild is of opinion that legislation is urgently required with the sole object of putting within the reach of the poorer classes the assistance both of a trained nurse and of a qualified medical practitioner, and recommends the adoption of the following scheme as a basis for future legislation." The scheme itself was thus described: "1. That all obstetric nurses be adequately trained in hospital, examined, and registered." They would, he believed, all agree in regard to that. The next point was: "2. That the guardians of the local sanitary authority be the authority for the local administration of the scheme." There could, he said, be no objection to that. The scheme continued: "3. That the local authority shall engage one or more registered obstetric nurses, at such salary as may be practicable, whose services shall be placed, free of all charge to the patient, at the disposal of any woman living in the district, and whose circumstances shall justify it, to nurse her during her confinement and during the puerperal period." He thought that that was a very desirable provision. The next Clause was: "4. That each local authority should issue to each nurse a note requisitioning the services of a registered medical practitioner. This note must be taken or sent by the woman to such practitioner as she may select who is willing to undertake this work." He did not think that the woman should have such an option. He thought the patient should have the option.

A short discussion followed in regard to what person the scheme meant to choose to whom to take the note, and Dr. Woodcock continuing said that the scheme did not say what it meant and they must take care in drafting a Bill that it was made clear as to who was referred to. Clause 4 ended as follows: "The acceptance by him of a note shall constitute an engagement on his part to render to her such assistance in her confinement as the nature of the case may demand." "5. That the notes which the practitioner received from the patients shall be redeemed by the local authority at such a rate as may be hereafter fixed. 6. That the question of the suitability of applicants be left to the local authority." He had only to say that that course meant some increase of taxation; it meant the assent of Parliament to a scheme which would involve some considerable amount of expenditure on the part of the local authority. Whether the time was quite propitious for approaching the Chancellor of the Exchequer he was not sure, but he did not wish to say that that was an insuperable difficulty. The Medical Guild was only a local organisation and could not expect to have the sort of influence which might be exercised by a larger and greater national or imperial organisation. He might say with regard to that scheme that if their own scheme failed to satisfy what appeared to be the demands of the profession, and in consequence of his having no confidence in the scheme which he had previously mentioned for the registration of nurses and seeing the difficulties in it that he did, he was prepared in regard to the guild scheme, if it were sent to the British Medical Association, which was the organisation through which they would have to work in the future to exert pressure on Parliament and on the public, to give it his most earnest attention. Under the present conditions they could not make any great impression, but if that scheme were sent to the representative meeting proposed for the Association, and if that meeting appointed a committee to deal with the matter, he was confident that it would be possible to draw up a Bill on those lines and he would give it all the support that was in his power, and he would do what he could to arrive at a satisfactory conclusion of that question which had been agitating the profession for so many years. He had no idea in the world of interfering with or violating the spirit of the Medical Act in any way. He would like to see midwifery practice entirely under the control of medical practitioners, and he thought that by-and-by they would have an Amazonian contingent in the medical profession which would satisfy the sentimental qualms of those who considered that women should be attended by those of their own sex. When he said that he was prepared to abandon the former scheme, which he was not absolutely wedded to, it was not his scheme any more than it was Mr. Brown's or Mr. Horsley's scheme, both of whom were members of the committee, and he did not remember that Mr. Brown ever protested against the report being on the lines that they were proceeding on: if they had failed in that direction let them all work together and let them have another try. The time had, however, arrived when they should cease internecine warfare and they should be able to present a united front to their opponents. He thought that he had been explicit in explaining his position. He did not speak of the conduct which he had pursued in an apologetic manner; he had explained the circumstances which led him step by step in the course he had followed. If they had succeeded in arriving at what might not be considered a satisfactory solution, then let them hark back and have another try. In conclusion Dr. Woodcock said that they would have to use the reconstituted British Medical Association in the way that people did use instruments to effect necessary results.

Mr. VICTOR HORSLEY said that in regard to the midwifery question, although it had never found full public support or adequate reference in the medical journals, there was before the medical profession a distinct series of points to which the General Medical Council had given their authority. Those points were contained in the public minutes of the General Medical Council and they embodied the principles upon which all safe legislation should be founded. His opinions on the matter were therefore in print both in regard to the safety of the public and the interests of the profession. With especial reference to what Dr. Woodcock had said he would add that he was five years ago chairman to a sub-committee for drafting the Midwifery Nurses' Bill, a sub-committee of the Parliamentary Bills Committee. They drafted the Bill mentioned by Dr. Woodcock, but he would like to remark that that Bill was circulated to the branches of the British Medical Association and was confirmed by the branches. There was no question whatever that the Association as such was pledged to legislation of some kind. It was no final legislation that was proposed, it was a draft Bill, as Dr. Woodcock said, and he (Mr. Horsley) wished to endorse entirely those opinions. If other schemes were brought forward which were better let them act on that which they thought was the best. Manchester was the place chosen for the great meeting of the Association next year and that meeting ought to be the record meeting of the Association for the reason that the representative meeting of the Association would be inaugurated there in the following July and that representative meeting would be the first occasion on which the views of the very different classes of practitioners throughout the country could be heard in a combined manner, provided, of course—and he thought it was perfectly possible—that the by-laws and articles of association were passed at the two statutory meetings which had to be held. For his part he would not accept anything as the voice of the profession on the midwifery question until it had found expression in a resolution of a really representative meeting. He assured them that when the sub-committee of which he was chairman invited criticisms from the branches, although they got favourable answers from a majority of the branches the criticisms received were, to say the least of it, not very strong. He was quite sure that was simply because they had no means of directly hearing the opinions of men representing the profession in different parts of the country. He hoped that they would understand clearly that all the legislation which had been drafted in the Association had been drafted for the purpose of counteracting the midwifery legislation introduced into the House of Commons which they all disagreed with. There was reason to believe that at the next meeting of the British Medical Association they would obtain the real views of the profession in this matter. At Cheltenham he observed that the scheme that Dr. Woodcock had referred to as emanating from Manchester was one which must commend itself to everyone who had taken an interest in the subject. Now, as regards what had passed in the Council since they elected him he was not going to inflict upon them the history of all that had occurred, which was contained more or less perfectly in the medical journals, but he wished to allude to one or two points. The

first and most fundamental point was this, that again they must use every effort to come to the statutory meeting in London to comment upon and pass the necessary articles and by-laws to carry out the scheme adopted at Cheltenham to reform the British Medical Association. His experience of the work in the Council showed him that they might ask for more Direct Representatives and they might get them, but that of itself would not reform the Council. In fact, they were entitled under the Act to only one more Direct Representative. What was one more vote? What was six instead of five, with 25 against them? There was only one way of getting at the root of the evil and that was to have an absolutely new Medical Act. It had been suggested repeatedly that if the General Medical Council was opposed to any new Medical Act that it was folly to think that any Government would favour reform. He did not believe it. He had endeavoured to state what was the relation of the Government to the General Medical Council. The Government at the present moment regarded the General Medical Council with absolute contempt and indifference, and he had pointed out in his reports to his constituents that the Privy Council had betrayed the General Medical Council on two great questions—the midwifery question and the question of practice in this country and Italy, the so-called reciprocity question. To say that the Government would not bring in a Medical Act to reform the General Medical Council if the General Medical Council opposed such a Bill was, he thought, ridiculous. The Government would support any Bill if they thought that the medical profession as a whole was going to move against them, and that was what they ought to seek to persuade the Government to think would take place if they failed to help them in the new Medical Bill. He did not believe that it would be necessary to use any threats at all nor would it be necessary with the new Association to work it on such lines because he thought the desired result could be brought about as a matter of bargain. The principle of bargain was already adopted in the Act of 1858, only it was not carried out. He believed it would be possible to recast the new Medical Act so as to provide a good bargain for them on one side and to provide that the General Medical Council should be really representative of the whole medical profession. It was essential to recognise that they could not get along without the General Medical Council. It was a very useful body when properly organised and if properly directed. The trouble had been that it was not properly worked; it was in the hands of the corporations which were now nothing but mere coteries of a few leading men in the profession, and it did not express the sense of the profession. The Council of the Royal College of Surgeons of England was composed of gentlemen in every sense of the word, but men who had arrogated to themselves the rights of all the members of the Corporation, and that was a position which he felt was an extraordinary position for the leaders of their profession to assume. But such as it was it was taken and they, with the other corporations in the General Medical Council, thought only of the interests of the corporations and not of the profession. Therefore they must have a new Medical Act and if they returned him in the following year again to represent them in the General Medical Council he would work there as he had done in the past from that point of view. But as he had said before they must not labour under any delusion, the General Medical Council was not the body that could or wished to carry out what they wanted in this work of progress and reform. He wished to speak a word with regard to the present election and in so doing he spoke simply as an individual at the meeting, as a member of the profession to which they all belonged. These elections offered a chance of ameliorating their position in the General Medical Council to a certain though perhaps small degree. But it did so from this point of view, that if the practitioners throughout the North of England, where practice was of a different kind to that which they saw in the South of England, would select a man to represent them in the Council, he believed that the result would be that they would have the direct expression of perhaps the strongest branch of the profession and that thereby they would gain power because they would then find that instead of the remarks of a Direct Representative being received with contempt and derision they would be received with respect. It was very easy for them to vote for him and to send him to the Council, but if he rose to speak on some question with which they were all agreed should be determined in a certain direction, and if one of his colleagues got up to support it and was absolutely browbeaten by the President, what did they suppose was the effect on the question? It was simply that its prestige was hopelessly damaged in the minds of many members of the Council who otherwise might have given a fair consideration to the subject. That being the position at the present time he thought to a large extent it was due to the fact that all the three Direct Representatives for England and Wales lived in London. Dr. Glover, Mr. Brown, and he himself were all well known personally to those members who represented the corporate bodies, and they could not get away from personal considerations in this case because such considerations did weigh heavily with the members of the Council and they judged of the merits of the question not only by the details of a measure but by the merits of the person who advocated it. If they returned Dr. Woodcock as representing the North, as representing medical education in the North, and above all as representing the practice of the medical profession in the North, they would have advanced one step, and a very important step, towards the furtherance of their interests in the General Medical Council. Speaking therefore as an independent and disinterested observer in that matter he could not again more strongly urge upon them that Dr. Woodcock's election would create a happy addition to their strength in the General Medical Council.

In reply to Mr. F. B. HARGREAVES Dr. WOODCOCK explained that he was much interested in the question of vaccination, which should be sufficiently and efficiently performed. He did not care who did it, but the Government should lay down some definite rule as to what was efficient vaccination and then let them make contracts with whom they liked. He (Dr. Woodcock) was not in favour of the registration of midwives. He had never thought so; he was in favour of the registration of obstetric or midwifery nurses and to the fullest extent possible he would place them under medical control.

In reply to an inquiry from Mr. R. H. WOLSTENHOLME Dr. WOODCOCK replied that he was perfectly prepared to give a full trial to the scheme of the Medical Guild of Manchester.

In answer to Mr. COLIN CAMPBELL Mr. HORSLEY stated that the question of the legality of councils of the corporations electing representatives for the General Medical Council had been settled by the South London Medical Club who obtained counsel's opinion on this point. From that it appeared that in the case of the Royal College of Surgeons of England the corporate bodies have such powers in their charters that the courts would only say that the Council of the Corporation was justified in acting as a corporation in a matter such as an election of representatives. It was only by fresh legislation that the profession could procure the restoration of their rights. The universities were in a worse case, and it was notorious that the member of the General Medical Council representing the University of Durham was elected by clergymen, lawyers, and only a sprinkling of medical men.

Mr. WOLSTENHOLME said he was most anxious to support Dr. Woodcock as a local candidate and would do so if Mr. Horsley and he would do their best in the case of midwives being registered to see that they should act as nurses and should do the nursing themselves. He gave details of a midwife in his neighbourhood who did not do any nursing.

Dr. WOODCOCK explained that the British Medical Association Bill had a distinct clause penalising a midwife who employed an unregistered woman to assist her.

Dr. BROWN RITCHIE pointed out that any deputy must be registered. The conversation on this subject was concluded by Mr. HORSLEY who said that the Bill of the Association contained regulations that each of these registered women was to nurse as well as to attend to the labour, and if anything happened that such a woman could not go to a case she had a perfect right to employ another woman who was equally registered as herself to go and do the work for her as a deputy. It was the same thing as themselves, if they could not do a case they sent their assistant or a friend, but they had to send some one who was defined under the same Act of the Legislature, and that was the real point at issue.—In reply to Dr. BROWN RITCHIE, Mr. HORSLEY said they were all agreed that any individual who touted himself for patients after the manner of the medical aid societies would be just as liable to the penal action of the General Medical Council as a man connected with a medical aid society that touted for members.

In answer to a further question by Dr. BROWN RITCHIE Mr. HORSLEY said that the members of the General Medical Council were beginning to recognise that the corporations were of no use for disciplinary purposes and he thought that their responsibility in that respect was in course of recognition by the authorities.

Mr. G. H. BROADBENT inquired of Dr. Woodcock if he would do all that he could to insist in the General Medical Council on the fixing of a wage-limit and also on the Council insisting on friendly societies being under the direct control of the medical staff.

Dr. WOODCOCK replied that he did not suppose the General Medical Council had any control over anyone but registered persons. He was in favour of a wage-limit but he considered that one great conciliation board would not be of much value, especially as the representatives of the friendly societies declined altogether to discuss the question of wage-limit. Local conciliation boards might be instituted, but there ought to be clear understanding on the part of every member of the board that there should be a wage-limit.

Dr. C. MACFIE (Bolton) said he had had a sort of feeling that Dr. Woodcock was not quite in line with their opinions, but his explanation was so clear and explicit that no one would go away without the conviction that he was the man to support.

The usual votes of thanks terminated the proceedings.

ANNUAL DINNER OF THE WIGAN AND DISTRICT MEDICAL GUILD.

Mr. Victor Horsley and Dr. S. Woodcock were entertained by the Wigan and District Medical Guild on Oct. 31st on the occasion of the annual dinner of the guild held at the Royal Hotel, Wigan, with Mr. W. MITCHELL ROOCROFT in the chair.

Sir WILLIAM M. BANKS proposed the toast of "The Wigan and District Medical Guild." He said that he would like to explain to Mr. Horsley the way in which the guild worked, and he gave as an example the facts of a case of a certain medical man who came to Wigan and paid a large sum of money for a practice, afterwards marrying and having a family. He had borrowed the money to pay for the practice, and after many a long year he paid it off and then contracted an illness from a patient and died, leaving a widow and three little children. That man was a member of that guild. The members of the guild decided that for 12 months not a single club that that medical man had held should be accepted by any practitioner in the town, and the practice was sold for a good and fair price for the benefit of the widow and children. All the members of that guild played fair with the in-coming medical man and saw to it that the patients of the man who had died were not lost to the practice. Sir William Banks concluded by discussing the two things from which he considered the profession suffered most—namely, the over-pressure of numbers and the utter want of cohesion.

Dr. WOODCOCK also spoke for a short time in support of this toast. Referring to the excellent results obtained by medical men combining together he said that at Oldham so complete was the organisation of the medical men that the friendly societies had to pay ordinary medical fees.

Mr. ROOCROFT, chairman of the Wigan and District Medical Guild, in responding to the toast, said that there were only two medical men in the district who were not in the guild, and one of those was connected with a medical aid association. He was, in their opinion, a young and misguided man and a stranger. They pitied him for being a slave and sincerely trusted that it would not be necessary to call in to their assistance those severer measures which might be used if they acted on the resolution passed by the General Medical Council that they disapproved of medical practitioners who associated themselves with medical aid societies that touted for patients.

Mr. LUTHER COOKE proposed the health of "The Guests," which was replied to by Mr. VICTOR HORSLEY.

Mr. HORSLEY said: Mr. Roocroft and gentlemen, I thank you very much for your kind reception of your guests. I may venture to say that I am specially qualified to do so, if Mr. Mayor will allow me to speak on behalf of the non-medical as well as the medical guests, because the General Medical Council on which I have the honour to sit by your favour is a body constructed to protect the interests of the public as well as to watch over the interests and education of the pro-

fession. As a matter of fact, I do not think that the public has any idea of what the functions of the General Medical Council are. That body was constructed by the State in order that the public might recognise who was a properly qualified medical practitioner and who was not. It is quite true the State also agreed that if medical men would duly qualify themselves the State would protect their practice, but I regret to say that the State has not carried out its share of the bargain. The General Medical Council has, however, done an inestimable service to the general public because it is the solitary exception of a professional body that purifies the profession it is connected with. The Incorporated Law Society, if we may trust the papers, might do much more for the lawyers, but the General Medical Council has done up to the present time a great deal in purging the medical profession of evil-doers and in that respect it has done well. In regard to what Sir William Banks has said of the overstocking of the profession a great many of the evils of the medical aid associations did arise from overstocking of the profession, but four or five years ago I showed that the flow into the profession of recruits had begun to diminish steadily, the decrease beginning as long ago as 1895, and from that time until now there has been a steady diminution so that we cannot say at the present moment that overstocking is the cause of medical aid associations. I believe that this medical aid question is partly a socio-political question and partly a financial question on the part of the friendly societies—they want to buy in the cheapest market. The members of the friendly societies cannot recognise the conditions of medical practice, they cannot recognise that under the so-called contract system they are not buying what they think they are buying, they are not getting a fair return for what they consider a legitimate expenditure. In other words, they do not get medical attendance in the proper sense of the word. This brings us to a misunderstanding of the General Medical Council towards medical aid work for many years. They no more understood the question than did the general public. When I entered the Council four years ago it was quite evident that its members did not grasp the conditions under which a medical man connected with a medical aid society carried on his work, because at that time, four years ago, there was no intention on the part of the General Medical Council to take up the attitude which we were delighted to see it adopt in the case of Dr. Irvine. Now the General Medical Council has through a special resolution offered to look upon any case properly brought before it—any specific case—in the same way as it would look on any other instance of unprofessional conduct. And here, again, I think the public do not understand the bearing of what we call unprofessional conduct; they do not understand that medical etiquette is a system calculated to preserve that due respect for the responsibility of life which every medical practitioner takes upon himself when he becomes a qualified medical man. You must have some such system to put that responsibility on to one individual and to keep it there, and it is that sense of responsibility which furnishes that basis of action on the part of this guild which seems to me most pathetic and tragic in its details—I refer, of course, to the case of the sale of the practice in this town arranged for the widow by this guild. I only want to emphasise the fact that from the point of view of the public, as well as from the point of view of the profession, the interests of both are the same. It is our interest to see that the members of our profession do their work honourably; it should be the interests of the public to support us in endeavouring to carry that out. As soon as the public recognise our motives you may be perfectly sure that the public on their side will do their part, and if they only learn that we are working for the safeguarding of the health of the community then they will support the profession in exactly the same way as they have gradually come to do in regard to sanitation. The public gradually learnt that the medical profession in endeavouring to gain sanitary reform was acting honourably in the interests of the public. I believe that it will be the same in regard to friendly society work and that it will be brought about by a better understanding and by meetings of this kind. I do not believe in a conciliation board. I do not believe in artificial means of any kind in which there is not to be a free and clear discussion by both parties. But this guild represents to my mind an ideal condition which would be stronger if it were under another name, and that name I should like to see the "British Medical Association." It is perfectly evident to everyone who studies social politics at all that combination is absolutely essential to progress and, of course, it follows that we must have every member of the profession enter into such combination. You have in the British Medical Association some 18,000 members of the profession, that is our combination. If we could only have this Association divided up into small bodies having real autonomy each of these bodies or divisions in a town—such, for instance, as your guild—would be a division of the British Medical Association, then by each of these bodies sending a representative to an annual meeting you would have the most complete combination of the profession at one blow. This is what we hope to see carried out in the next session by the adoption of the by-laws and regulations of the British Medical Association. I hope that some of you may find it possible to come to London to the statutory meetings and support the scheme to remodel the Association by passing the new articles and by-laws; I hope from the bottom of my heart that you will send Dr. Woodcock to the Council; and I intend, when my seat at the Council becomes vacant, to ask you to send me there for another term; and I believe that at the end of that period we shall find ourselves not only working with a reformed British Medical Association but also under the influence of a new Medical Act.

Dr. W. CARTER (Liverpool) proposed "The Town and Trade of Wigan," which was responded to by Mr. T. EVANS, the mayor, and by Mr. W. BERRY, chairman of the Wigan Infirmary.

CHARING CROSS HOSPITAL.—The Council have decided to add an ophthalmic department to this hospital. The days and time of attendance for patients will be on Wednesdays and Saturdays at 9 A.M.

LITERARY INTELLIGENCE. — Messrs. W. B. Saunders and Co. have in the press for early publication during the autumn "Anatomy in Relation to Art," in one quarto volume, and "Regional Anatomy," fourth edition, in two volumes. Professor George McClellan, professor of anatomy, Pennsylvania Academy of Arts, is the author of both works.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary meeting of the Comitia was held on Oct. 31st, Sir WILLIAM SELBY CHURCH, Bart., the President, being in the chair.

The following gentlemen having passed the required examination were admitted as Members of the College:—Robert Hamilton Bell, M.A., M.B. Cantab., L.R.C.P. Lond.; Leonard Stanley Dudgeon, L.R.C.P. Lond.; Charles Henry Fennell, B.A., M.B. Oxon., L.R.C.P. Lond.; David Nunes Nabarro, M.D., L.R.C.P. Lond.; Frank Charles Shrubsall, M.A., M.B. Cantab., L.R.C.P. Lond.; William Mitchell Stevens, M.D., L.R.C.P. Lond.; Septimus Sunderland, M.D. Brux., L.R.C.P. Lond.; and Eustace Talbot, M.A., M.B. Cantab., L.R.C.P. Lond.

Licences to practise medicine were granted to 106 gentlemen who had passed the required examinations.

The following communications were received:—

1. From the Lord President of the Council forwarding a letter from the Egyptian Government announcing that a Congress of Medicine will be held in Cairo in December, 1902, and inviting the College to send delegates.—It was decided to send a delegate to the Congress on the nomination of the President.

2. From the President of the Fourteenth International Congress on Medicine to be held at Madrid in April, 1903, inviting the College to take part in the same, and inclosing copies of the Regulations.—The invitation was accepted.

3. From the executors of the late Dr. John Cavafy announcing his bequest of £500 to the endowment fund of the College.—The PRESIDENT proposed that a formal vote of thanks should be forwarded to the executors and other members of the family for the handsome gift.—This was carried unanimously.

4. From Dr. Norman Moore, conveying a proposal from Mrs. Fitzpatrick to found a lectureship at the College on the History of Medicine in memory of her late husband, a Member of the College, and inclosing a draft for £2000.—On the proposition of Dr. NORMAN MOORE, seconded by Dr. J. F. PAYNE, a cordial vote of thanks was accorded by the College to Mrs. Fitzpatrick for her munificent gift which was gratefully accepted.

5. From Mr. S. Cowell, reporting certain proceedings of the Council of the Royal College of Surgeons of England.

The audited accounts for the year ending Sept. 29th last were laid before the College and the quarterly report of the Finance Committee was received.

A report was received from Dr. C. Theodore Williams, the delegate of the College at the recent Congress on Tuberculosis, and another report was received from Sir Felix Semon who was appointed to convey the congratulations of the College to Professor Virchow on his eightieth birthday.

A report was received from the Committee of Management stating that two schools had been omitted from the list of institutions recognised by the Examining Board in England for instruction in chemistry, physics, practical chemistry, and biology, and that Blaenau Festiniog County School and Southend Technical School had been added to the list. Dr. Frederick Taylor was re-elected a member of the Committee of Management and Dr. P. H. Pye-Smith was re-elected a member of the Laboratories Committee.

Reports were received from the Laboratories Committee and from the Examiners for the Licence.

A list of books presented to the library during the past quarter was received and the thanks of the College were accorded to the donors.

The REGISTRAR, in accordance with a resolution of the College of July 25th last, moved that by-law lxvi. be amended by the addition of the words in italics in the copy below, and re-enacted for the first time as follows:

The Council shall consist of the President, censors, and treasurer of the College, of the representative of the College in the General Council of Medical Education, *of one of the representatives of the College on the Senate of the University of London*, and of 12 other Fellows of the College.

Also that the following regulation should be appended to the by-law:

Each University representative shall serve alternately as a Member of Council for a term of two years, or for such shorter term as he may remain a representative.

The PRESIDENT then dissolved the Comitia.

Public Health and Poor Law.

LOCAL GOVERNMENT BOARD.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of London.—The condition *quâ* revaccination of the resident population of the City is not eminently satisfactory, at least in so far as the information in the hands of the medical officer of health is concerned. According to this only four adults were revaccinated during the year 1900. It is not clear, however, how the information with regard to revaccination is procured, and doubtless a large number of persons undergo the operation unknown to the authorities. Dr. W. Sedgwick Saunders, the late medical officer of health, advised that no unvaccinated child should be admitted into the artisans' dwellings, and Dr. W. Collingridge practically endorses the recommendation. The City forms a very important distributing centre for certain foods and as such it is of interest to the consumer to know that 312 loads of vegetables, condensed milk, fish, tinned meat, &c., were removed at the request of the owners during 1900. We note, too, that a large quantity of unwholesome fruit consigned to jam manufacturers in this country was destroyed. As many as 410,380 tons of meat were delivered at the Corporation Markets, Smithfield, during the year now under review, and of this amount some 962 tons were seized by the inspectors. The proportion of "country" and "town" killed meat delivered is gradually decreasing, while that of "foreign" American and Australian meat is steadily increasing. The condemned meat is apparently disposed of to a firm of contractors who, during 1900, paid £2525 3*s.* for it. It seems that the meat is treated in some fashion—perhaps with picric acid—before being disposed of, but it would be instructive to know the ultimate destiny of such meat. At Billingsgate Market 187,684 tons of fish were received, the bulk of which was land-borne. Of this total nearly 770 tons were condemned.

Southampton Urban and Port District.—The census population of Southampton was 104,911, figures which showed that the estimates had been somewhat in excess. As regards small-pox there were 21 cases isolated during the year, several of them having been removed direct from mail-steamers arriving in the port, and the hospital ship seems to have performed good service in the matter of isolation. Mr. A. Wellesley Harris, the late medical officer of health, but the author of the report under notice, advocates the inclusion of small-pox in the provisions of the "plague order." Were this the case local authorities to whose districts persons from small-pox infected ships are travelling could be informed of their arrival. The new isolation hospital was opened during 1900, and already the neighbouring authorities have made use of this provision for cases of infectious diseases occurring in their districts. The charge for such patients for the public wards is one and a half guineas a week, and for the private wards three guineas, but the charges vary somewhat according to the nature of the disease. The provision of private wards will be very acceptable to persons able to pay for them, albeit this practice may lead to some unpleasant distinctions at times. The annual report as to the work in this part of Southampton shows what a serious responsibility has devolved upon the medical officer of health in consequence of the large transport traffic passing to and fro between South Africa and Southampton. Mr. Harris reports that about 45,000 troops were brought to the port during 1900, and amongst them were many suffering from enteric fever. The isolation provision at Southampton seems to be now very complete, and arrangements have been made with the War Office for the provision of special contact camps for troops under observation. The good work which has been done at Southampton is very largely due to the efforts of Mr. Wellesley Harris who is to be cordially congratulated upon his promotion to a metropolitan borough.

Borough of Hackney.—Dr. J. King Warry draws attention in his current annual report to the difficulty which the modern "flat" presents in the direction of the satisfactory disposal of house refuse, and it is a difficulty with which most dwellers in "flats" have been brought inconveniently into contact. Some of Dr. Warry's remarks apply more particularly to the tenements of the poorer classes, but they are not without application to the highly-rented "flats" of the well-to-do. The storage of house refuse for a week in the scullery, however "sanitary" the dustbin may be, is open to the strongest objection and is more to be condemned than the shoot which has an opening into the staircase or passage in connexion with each floor. But perhaps the most objectionable of all is when the shoot opens directly into the scullery or kitchen and is only separated therefrom by a door which is supposed to be, but rarely is, air-tight. When the shoot is being used by other occupants of the block a cloud of highly offensive dust is apt to force its way through the interstices of the door to the great inconvenience of the occupants of the room and to the serious pollution of articles of food. The erection of such devices as these should no longer be allowed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 7003 births and 3859 deaths were registered during the week ending Nov. 2nd. The annual rate of mortality in these towns, which had been 15·9, 16·8, and 16·7 per 1000 in the three preceding weeks, rose again last week to 17·6 per 1000. In London the death-rate was equal to 17·4 per 1000, while it averaged 17·7 in the 32 large provincial towns. The lowest death-rates in these towns were 8·1 in Croydon, 10·5 in Swansea, 11·0 in Cardiff, and 11·5 in Leicester; and the highest rates were 21·5 in Liverpool and in Newcastle, 22·0 in Burnley, 22·1 in Preston and in Salford, and 23·7 in Blackburn. The 3859 deaths in these towns included 371 which were referred to the principal zymotic diseases, against 488, 468, and 398 in the three preceding weeks; of these 371 deaths 88 resulted from diarrhœa, 71 from diphtheria, 65 from measles, 59 from "fever" (principally enteric), 46 from scarlet fever, 35 from whooping-cough, and seven from small-pox. No death from any of these diseases occurred last week in Croydon; in the other towns they caused the lowest death-rates in Brighton, Cardiff, Nottingham, Derby, and Oldham, and the highest rates in West Ham, Blackburn, Sheffield, and Sunderland. The greatest mortality from measles was recorded in Norwich, Blackburn, Huddersfield, Halifax, and Sheffield; from whooping-cough in Sunderland; from "fever" in Salford and Halifax; and from diarrhœa in West Ham, Burnley, Preston, Huddersfield, and Sunderland. The mortality from scarlet fever showed no marked excess in any of the large towns. The 71 deaths from diphtheria included 36 in London, six in Liverpool, four in West Ham, four in Sheffield, and three in Bristol. Six fatal cases of small-pox were registered in London and one in Plymouth, but not one in any other of the 33 large towns. There were 284 small-pox patients under treatment in the Metropolitan Asylums hospitals on Saturday, Nov. 2nd, against 175, 172, and 180 on the three preceding Saturdays; 169 new cases were admitted during the week, against 37, 47, and 57 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had increased from 2994 to 3353 at the end of the eight preceding weeks, had further risen to 3391 on Saturday last; 425 new cases were admitted during the week, against 422, 404, and 400 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 186, 196, and 242 in the three preceding weeks, further increased last week to 327, but were 24 below the corrected average. The causes of 39, or 1·0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Salford, Bradford, Leeds, Hull, and 10 other smaller towns; the largest proportions of uncertified deaths were registered in Nottingham, Liverpool, Sunderland, and Newcastle.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had risen from 14·5 to 19·3 per 1000 in the four preceding weeks, further increased to 19·9 per 1000 during the week ending Nov. 2nd, and was 2·3 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14·4 in Paisley and 14·5 in Greenock to 22·1 in Leith and 22·2 in Dundee. The 634 deaths in these towns included 32

which resulted from diarrhœa, 14 from measles, 14 from "fever" (including one from bubonic plague), nine from diphtheria, five from scarlet fever, and five from whooping-cough. In all, 79 deaths were referred to these principal zymotic diseases last week, against 79 and 69 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2·4 per 1000, which was 0·7 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhœa, which had been 32, 30, and 27 in the three preceding weeks, rose again last week to 32, of which 15 occurred in Glasgow, five in Dundee, and four in Aberdeen. The deaths from measles, which had been 15 and 12 in the two preceding weeks, rose again to 14 last week, and included 13 in Glasgow. The fatal cases of "fever," which had been six, five, and 13 in the three preceding weeks, further increased last week to 14, of which 10 (including the death from bubonic plague) were registered in Glasgow, two in Edinburgh, and two in Paisley. The deaths from diphtheria, which had been 12 and five in the two preceding weeks, rose again to nine last week and included four in Glasgow and three in Edinburgh. The fatal cases of scarlet fever, which had been seven, five, and four in the three preceding weeks, increased last week to five, of which four occurred in Glasgow. The five deaths from whooping-cough showed a decline from recent weekly numbers and included two in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 75, 97, and 133 in the three preceding weeks, were again 133 last week, and were 15 below the number in the corresponding period of last year. The causes of 27, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·7, 19·9, and 19·3 per 1000 in the three preceding weeks, rose again to 22·7 per 1000 during the week ending Nov. 2nd. During the past four weeks the death-rate has averaged 20·2 per 1000, the rates during the same period being 16·1 in London and 16·0 in Edinburgh. The 163 deaths of persons belonging to Dublin registered during the week under notice included 19 which were referred to the principal zymotic diseases, against 21, 10, and nine in the three preceding weeks; of these, nine resulted from diarrhœa, five from "fever," four from whooping-cough, and one from scarlet fever. These 19 deaths were equal to an annual rate of 2·6 per 1000, the zymotic death-rate during the same period being 1·5 in London and 1·3 in Edinburgh. The fatal cases of diarrhœa, which had been 14, five, and four in the three preceding weeks, rose again last week to five. The deaths referred to different forms of "fever," which had been eight, six, three, and 0 in the four preceding weeks, increased to five last week. The mortality from whooping-cough exceeded that recorded in any recent week. The 163 deaths in Dublin last week included 42 of children under one year of age and 42 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a marked increase over the respective numbers in the preceding week. Eight inquest cases and eight deaths from violence were registered; and 58, or more than a third, of the deaths occurred in public institutions. The causes of eight, or nearly 5 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

ON the occasion of the return of their Royal Highnesses the Duke and Duchess of Cornwall and York in H.M.S. *Ophir* from the Royal visit to the colonies Surgeon Robert Hill has been promoted to Staff Surgeon in His Majesty's Fleet.

The following appointments are notified:—Staff Surgeon J. Hughes to the *Amphitrite*. Surgeons: C. S. Bennetts to the *Fearless*; W. W. Keir to the *Lion*; W. H. Pope, to the *Rinaldo*; G. Ross to the *Juno*; S. T. Reid to the *Vestal*; G. M. Eastment to the *Gleaner*; and J. C. Rowan to the *Mutine*. Civil Practitioner A. H. S. Todd, to be Surgeon and Agent at Kingstown and Dalkey.

ROYAL ARMY MEDICAL CORPS.

Surgeon-General A. F. Preston, Director-General, Army Medical Service (temporarily), to be an Honorary Physician to the King, vice Surgeon-Major-General W. A. Thomson, retired pay, deceased. Dated Nov. 2nd, 1901.

Major C. C. Reilly has arrived at Dover and has been posted to the Station Hospital, Western Heights, for duty. Captain G. A. Moore has left Shorncliffe for service in South Africa. Lieutenant A. J. Williamson proceeds from Lincoln to York for duty. Surgeon-Lieutenant K. N. Taylor, Army Medical Reserve (3rd Volunteer Battalion the Essex Regiment), assumes the duties of Assistant to the Medical Officer in charge of officers, women, and children, Colchester.

Captain R. E. G. Phillips is seconded for service with the South African Constabulary. Dated March 17th, 1901. Lieutenant-Colonel H. J. McLaughlin retires on retired pay. Dated Nov. 6th, 1901.

MILITIA MEDICAL STAFF CORPS.

Montague Adye Cholmeley to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 2nd Devonshire (Western Division, Royal Garrison Artillery): Surgeon-Lieutenant L. L. Hanham to be Surgeon-Captain. *Royal Engineers:* 1st Newcastle-on-Tyne: Surgeon-Lieutenant-Colonel R. F. Cook retires under paragraph 111 Volunteer Regulations, with permission to retain his rank and to wear the uniform of the corps on retirement. Dated Nov. 2nd, 1901.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Captain H. D. Mason, Royal Army Medical Corps, to be Adjutant on increase of Establishment.

SOUTH AFRICAN WAR NOTES.

Civil Surgeon W. M. Mackay left Cape Town for England on Oct. 24th.

Captain D. D. Shanahan, R.A.M.C., received a gunshot wound in the right hip at the action near Vleifontein on Oct. 24th.

ARMY ADMINISTRATION.

A new Order in Council has been published in the *London Gazette* of Nov. 5th defining the duties of the principal officers who, under the Secretary of State for War, are charged with the administration of the departments of the army. Speaking broadly, the duties and position of the principal heads of departments, as it seems to us, remain much the same as before, subject, however, to their being more or less modified according as they happen to come under the terms of the new Order under the direct control or simply under the supervision of the Commander-in-Chief. In the case of the Adjutant-General's department, for instance, it is under the control of the Commander-in-Chief, while in that of the Director-General of the Army Medical Department the word "supervision" is used to define the Commander-in-Chief's relation to the head of that service. It will be seen, however—and this the great point—that the Director-General is to advise the Secretary of State on all matters connected with his department. We make the following extract from the Order in question:—

"*Department of the Director-General, Army Medical Department.*—The Director-General, Army Medical Department, shall, under the supervision of the Commander-in-Chief, be charged with the administration of the medical establishments of the army and of the Royal Army Medical Corps, with dealing with sanitary questions relating to the army, with the preparation of medical and sanitary statistical returns, and with the supply of medical stores to the army. He shall advise the Secretary of State as to the general distribution of the Royal Army Medical Corps, as to the appointment of officers to, or their removal from, responsible positions therein, and on all other matters connected with his department. He shall make such inspections as may be necessary to ensure the efficiency of the services under his control, and shall submit proposals for the annual estimates for the medical services."

THE WAR IN SOUTH AFRICA.

The War Office on Nov. 5th issued its usual table showing the casualties in the field force in South Africa reported during the month of October and the total casualties reported from the beginning of the war up to and including that month. From this we gather that the reduction of the military forces through war in South Africa—from deaths, missing, and prisoners, and invalids discharged as unfit for

further service—amounts to a total of 22,773 officers, non-commissioned officers, and men.

HOSPITAL ORDERLIES FOR THE ROYAL ARMY MEDICAL CORPS.

The Director-General, Army Medical Service, has intimated that hospital orderlies are still sorely needed for service in South Africa, and that the immediate assistance of the St. John Ambulance Brigade to the extent of 200 men would be very highly valued.

Correspondence.

"Audi alteram partem."

THE DANGERS OF A COMMON COLD.

To the Editors of THE LANCET.

SIRS,—I feel sure we are all pleased to see in our public places, cars, &c., notices prohibiting spitting. Whether we Englishmen are more prone to that form of dirtiness and bad taste than our American cousins and foreign friends I am doubtful. The upper few inches of the earth's living mould is the natural and proper receptacle of all animal and human excreta. Its deposition at a sufficient distance from habitation is neither poisonous to its surroundings nor offensive to the most delicate taste. That we must expectorate under many conditions too numerous to mention and at most inconvenient times and places is not sufficiently remembered by our sanitary legislators. The use of soft paper handkerchiefs ought largely to be encouraged as being much preferable to linen: eventually they should find their way to that resolver and perfect cleanser of all dirt, the fire. It is quite possible that at some future time all municipal authorities will provide in certain situations receptacles for the holding of used handkerchiefs until their removal by the corporation. The association of man with his fellows bristles with difficulties and dangers. I should like to instance particularly the infectiousness of common colds. Whether these colds, catarrhs, influenzas (?), and febriculas are produced by a chill or are one of the many manifestations of the growth of specific and distinct *materia morbi* is a question awaiting the patient investigations of the bacteriologist. That colds are personally infectious is an accepted axiom by many of the intelligent laity, and I know many people with delicate chests who do not fear exposure to inclement weather, but who, from personal experience, have a righteous dread of coming near anyone suffering from a cold. The opinion of our profession on this subject is only half-formed and very insufficiently insisted upon.

We are all too familiarly aware how a cold runs through a family, and it must be the experience of all practitioners how catarrhal inflammations of the mucous membrane break out at varying seasons of the year, with epidemic severity. The sequelæ of so-called simple colds are in all conscience severe enough, if we accept the *ipse dixit* of the public and the general voice of the profession on the point. It therefore seems a cruel thing that we should not warn our patients and the public against the infectiousness of most, if not of all, colds, and particularly during the catarrhal stage. Important as may be the prevention of spitting that of disseminating colds is equally so. The person suffering from a cold who attends a public or private indoor gathering, perhaps with children and people troubled with delicate chests, throats, &c., is an immediate source of perilous infection.

At this season of the year a small, stuffy room, flaming gaslights, a temperature of from 70° to 80° F., the practical absence of bright sunlight by our moisture-laden air, heavy curtains round the all too small windows, and the vitiated exhalations of the people present, seem almost perfect surroundings for the luxuriant cultivation and growth of anaerobic saprophytes.

Personally when called into a house and finding a patient suffering from cold I always warn the members of the household of its infectiveness and advise the avoidance as much as possible of all immediate personal contact. Kissing must be a common source of contagion, and children and babies are often martyrs to this injudicious custom. Good ventilation is essential in the room. From personal experience of the recent rational treatment of consumption by fresh air and sunlight I am led to believe that a great part of its efficacy is due to its largely preventing the risk of recurring catarrh. The unfortunate owner of a cold before mixing with his fellows should carefully disinfect his oro-nasal passages, always remembering that whilst so possessed he continues a treacherous friend and a dangerous enemy.

I am, Sirs, yours faithfully,

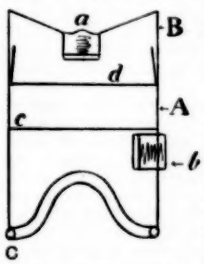
R. PROSSER WHITE, M.D. Edin.,
Honorary Medical Officer, Royal Infirmary, Wigan.

Oct 28th, 1901.

A SIMPLE APPARATUS FOR ETHER NARCOSIS.

To the Editors of THE LANCET.

SIRS,—When, towards the end of last August, I was in Aix-la-Chapelle I visited a nursing-home conducted by Dr. Longard and Dr. Beaucamp, and was there shown by the former a mask for the inhalation of ether which I do not remember to have seen in this country. As this mask seems to have very definite advantages over those generally in use I venture to call the attention of those interested in such matters to the claims put forward on its behalf. It consists (see section) of a metal mantle (A) which is closed on the one side by a funnel-shaped lid (B) and finished on the other by an indiarubber cushion (C) which forms the face-piece. In the deepest part of the lid are a few holes which are closed from within by a spiral spring valve (*a*), so that air finds ingress but no egress. This is the inspiration valve. The expiration valve (*b*) is near the face-piece. Between the valves are two horizontal fine wire sieves (*c* and *d*). The upper one is removeable, and between the two some gauze is laid. With the patient in the usual position some ether is poured on to the lid. As the patient inhales the valve opens and the fluid runs down and falls on the metal sieve (*d*) and thence on to the gauze. From there it passes on to the lower sieve, wetting the wires and filling up the meshes. When inhalation takes place what reaches the lungs is not pure ether, but ether which by means of the sieve arrangements has been finely mixed with atmospheric air.



The first masks which were made were found to have the disadvantage of generating ice when the atmosphere contained much moisture. This has now been remedied by the introduction of a ring-shaped thermophore which exactly fits the lid. Before the inhaler is used this thermophore is detached, heated in hot water for a few minutes, and replaced. Its presence is found to obviate the difficulties which formerly arose from the formation of a freezing mixture.

The experience of three years' constant use of this inhaler on every kind of patient may be summed up as follows: 1. Women and young men become completely unconscious in from two to three minutes, sometimes less. In older men six minutes may be necessary, but there is never any stage of excitement even in inebriates. 2. No preliminary administration either of gas or chloroform is necessary, a matter of very considerable importance to the administrator. 3. The amount of ether required for the production of complete anæsthesia is very small. For children from five to 10 cubic centimetres suffice; women require from 15 to 25 cubic centimetres, while for men, especially inebriates, from 30 to 50 cubic centimetres may be necessary. This is an appreciable saving, being about a third of what is used in the ordinary forms of ether inhalation. Lastly, the mask is exceedingly portable and does not easily get out of order. I do not know whether any of our instrument makers keep this mask, but an inquiry addressed to Dr. Longard at Aachen, Rhenish Prussia, would meet with a prompt reply. The price, I understand, is about 30*s*.

I am, Sirs, yours faithfully,

York-street, W., Oct. 21st, 1901. LEONARD WILLIAMS.

SCHOOL PUNISHMENTS.

To the Editors of THE LANCET.

SIRS,—Your interesting leading article on "School Punishments" in THE LANCET of Oct. 26th, p. 1131, opens up a subject of great importance to medical men in general and to

medical officers of schools in particular. The discreditable incident narrated therein should make every medical officer carefully inquire into the punishments inflicted in the school to which he is attached. In a properly organised school the system of punishments has been carefully thought out and the punishments graduated according to the gravity of the offence. Indiscriminate methods, such as boxing the ears, shaking by the shoulders, use of ruler, should be abolished. Your article does not mention the most valuable method of inflicting disciplinary punishment—namely, penal drill. This is performed under the supervision of the drill sergeant who sees that it is well and smartly taken. The advantages of this method are that it involves physical exertion and can be performed in the open air.

All disciplinary punishments of an ordinary class have to be entered in a public book, cause shown, and signature of the master inflicting the punishment inserted. In all cases penal marks are given which rank against the grant of extra half-holidays to the school and count against the individual in his petition for any privilege and appear in his terminal reports. Caning on the hands is prohibited and indeed should be made illegal. Caning elsewhere with a light cane only is permissible. It should be inflicted for a sufficient moral reason and not as a penalty for inferior work. The punishment is inflicted under the general authority of the headmasters by the masters and, in certain cases, school prefects. Right of appeal to the headmaster, if desired, is granted. Birching is reserved for punishment where some idea of special disgrace is to be attended. Written punishment is set for deficiency of work and consists of definite set work, not "lines." All such is entered on public sheets. All written punishments have to pass inspection by the headmaster or his delegate and bear stamp as passed for decent writing and general neatness before being negotiable with the undermasters. Returned lessons must be learnt by heart. Written punishments are done in extra-school at fixed times. All written punishment is done on special paper of conspicuous pattern. The paper may not be brought into preparation or class

By the above methods punishment is rendered effective and consequently much lessened in amount. By inter-connexion between work- and conduct-marks, which would take too long to state, but is simple and comprehensive in working, the control of discipline is greatly facilitated.

I am, Sirs, yours faithfully,

EDWIN J. TOYE, M.D. Lond., F.R.C.S. Eng. &c.,
Medical Officer of the United Services College,
Westward Ho, Oct. 28th, 1901. Westward Ho.

A QUESTION OF SPELLING.

To the Editors of THE LANCET.

SIRS,—The consistent endeavour of THE LANCET to maintain correctness in the use of English is well known, at least to those who have contributed to its pages. I was therefore not surprised to find in my lecture published in THE LANCET of Nov. 2nd, p. 1173, that the adjective which I had written "faradic" was changed by the printer to "faradaic." I do not object. I was formerly accustomed to write the word in the latter way, which seemed more in harmony with its derivation from the name Faraday and with "Voltaic"; but a reviewer took me to task for doing so, on the ground of pedantry. Such a charge is indifferent to me, but I thought it well to ask Professor Skeat's opinion on the form. His answer is of sufficient interest to be quoted entire:—"Analogy with 'Voltaic' requires the form 'Faradayic.' The names were Volta and Faraday. I can well understand that 'Faradaic' is more convenient than 'Faradayic,' but it cannot be said to be 'correct,' as his name was not Farada. In the same way Faradic is still worse, as his name was not Farad. But language does not go by what is etymologically 'correct.' Only that is really correct or right which common consent accepts and declares to be the standard. Your question cannot be decided till one or other of the forms prevails over and kills off the other. I should think it very probable that 'Faradic' will ultimately win simply because it is the shortest. Though it cannot be contended that it is 'correct,' it can be strongly urged that it is convenient, especially when you come to 'Faradisation.' 'Faradayisation' seems too much."

Professor Skeat's remarks bring out the fact that what I said in the lecture on the vitality of words is true also of spelling Besides "faradisation" we have "faradism." Both "faradaisation" and "faradaism" are certain to disappear before the more convenient forms without the "a." Hence I felt that the analogy would assuredly determine in the long run the use of "faradic" and not "faradaic," and therefore I have since employed the former. If we can discern forms which must survive in the struggle for existence we may be saved useless effort.

In connexion with the subject of spelling it is worth while to consider whether it is desirable to attempt to preserve the "w" in "whooping-cough," which dates only from about 1500. But if the "w" continues in use in the common word "whoop" the effort may fail, since the word is in such common use.—I am, Sirs, yours faithfully,

Nov. 2nd, 1901. W. R. GOWERS.

*** We are grateful to Sir William Gowers for recognising our endeavour to maintain correctness in the use of English. We admit the force of Professor Skeat's remarks and have no objection to substitute "faradic" for "faradaic," but we shall continue to refuse to sanction the use in our columns of such barbarous impossibilities as, e.g., "try and" for "try to." Unfortunately they are becoming quite common even in literary quarters where we should not expect to see them.—ED. L.

CHRISTMAS HAMPERS FOR CRIPPLED CHILDREN.

To the Editors of THE LANCET.

SIRS,—May I once more ask the courtesy of your columns to bring before your notice the annual entertainment, &c., to poor children in the Guildhall of the City of London, and the distribution of Christmas hampers to 4000 or 5000 little cripples. It is my privilege to have received from His Majesty the King a subscription with an accompanying letter from the Keeper of the Privy Purse, in which Sir Dighton Probyn says:—

I have the pleasure to inform you that His Majesty will be very happy to continue his support to the Christmas and New Year's entertainment which you so kindly organise every year for the benefit of the ragged-school children of London.

It is, therefore, with confidence that I again appeal to you to assist me in raising the necessary funds. The balance-sheet, signed by Mr. W. H. Pannell, C.C., chartered accountant, honorary auditor, shows that last year £1434 1*s.* 6*d.* was collected, but year by year the number of crippled children registered increases, the difficulty of selecting the recipients for the hamper becomes greater, whilst the prolongation of the war makes my task still harder. I am making a special effort to mark the advent of the coronation year by extending the hamper distribution, and to that end would gratefully receive for the Children's Fund donations large or small, to be addressed to me as heretofore at 69, Ludgate-hill, London, E.C.

I am, Sirs, yours faithfully,

W. P. TRELOAR,
Ludgate-hill, E.C., Oct. 31st, 1901. Alderman.

THE HOME OFFICE ARBITRATION ON LEAD-POISONING.

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Oct. 26th a letter signed "A. Shadwell, M.D.," in which the writer says that "you are under some misapprehension" when you "speak of the manufacturers and workpeople as 'one side' and 'the other side' and imply that the Home Office is arbitrating between them, like the Board of Trade in industrial disputes," and he says that "the case is entirely different." May I ask where the difference lies? It is very evident to me that the writer has been misled by someone; the organised workers who have Lord James's permission to appear at the arbitration are certainly not on the side of the manufacturers in any sense. In eight or nine of the rules proposed we believe that they require strengthening; while Rule 6, which I believe was inserted at the request of employers, we feel we must object to so long as the Workmen's Compensation Act is not amended so as to include all cases of lead-poisoning. In reference to Rule 2, which is bound to provide a great deal of argument for and against on the part of the experts, our interests will be watched by counsel and we hope that some-

thing will be done to protect the health and lives of the lead-workers without in any way injuring the trade of the district. Dr. Shadwell would have been somewhere near the mark if he had said that the Home Office was between the two of us, the manufacturers saying that the proposed new rules are too stringent, while we (the workpeople) say that many of the rules are not stringent enough. Perhaps the best way of putting the case is to describe it as a three-cornered contest, in many portions of which the views of the operatives are directly antagonistic to the amendments of manufacturers. I am, Sirs, yours very sincerely,

N. PARKES,
General Secretary, Printers' and Transferrers' Trade Protection Society.

Burslem, Staffs, Oct. 29th, 1901.

EFFICIENT REVACCINATION.

To the Editors of THE LANCET.

SIRS,—Nothing will do so much harm to the credit of vaccination as the employment of inert or very feeble lymph. Complaints as to the quality of the lymph which ordinary practitioners are now able to get are very general, and it is not easy to see why the organisation of the Government supply of vaccine lymph should not be enlarged so to meet the demands of all practitioners, but till this is done other methods of improving the supply of trustworthy lymph may be considered. I venture to suggest two such methods. 1. The British Medical Association might employ inspectors of the commercial vaccine lymph manufactories. These inspectors should, of course, be familiar with the best methods employed in the Government laboratories here and in Germany and they should pay frequent and surprise visits to the manufactories and report at short intervals in the medical papers for the guidance of practitioners in need of lymph, grading the manufactories according to the excellence of the methods employed. 2. Reports as to the actual value of the various commercial lymphs as tested by experience might be published once a month in the medical papers, the name of the firm that supplied the lymph being given with each report. If a large number of general practitioners would take the trouble to send to THE LANCET and to the *British Medical Journal* month by month a record of all their vaccinations and revaccinations, mentioning for each case the source of the lymph used and the number of vesicles produced, the inducement to sell only active lymph would be materially increased. If Germany can efficiently revaccinate a population of 55,000,000 it ought not to be impossible to produce in England enough active lymph for our much smaller numbers.

I am, Sirs, yours faithfully,
E. GARRETT ANDERSON.

Upper Berkeley street, W., Nov. 2nd, 1901.

GUY'S WILL.

To the Editors of THE LANCET.

SIRS,—Reference to a copy of the first edition (1725) of Guy's will in my possession shows that the statement in the extract from the "Dictionary of National Biography" which appears in THE LANCET of Nov. 2nd, p. 1208, is slightly inaccurate; the four, six, or eight persons to be apprenticed or nursed ("or such like charitable deed") were "of the family of the Voughtons or Woods or proceeding therefrom." "Two or more such poor persons of the family of the Guys or proceeding therefrom" were to be similarly benefited. The Voughtons were Guy's cousins. The relationship to the testator of the Guys benefited under the will is not stated, but they received a smaller legacy than many of the other beneficiaries—viz., "Five Hundred Pounds a-piece." They were "Margaret Guy and Samuel Guy, the children of Samuel Guy, late of Egham in the county of Surrey."

My copy of the will contains a number of interesting manuscript notes, amongst them a statement that notices of Mr. Guy are to be found in "British Chronologist" (1789) under the year 1724, vol. ii., p. 94, and in Hughson's "London," vol. i., pp. 118, 119, and vol. iv., pp. 461, 462; also an alphabetical list in manuscript, dated Feb. 17th, 1744-5, of the "First and Present Presidents and Governors of Guy's Hospitall." A marginal note, which bears evidence of having been written by a former owner of the book in 1835, states that the will is "now in prerog. office." I suppose this means the office of the Prerogative Court of Canterbury. Is the original will now at Somerset House, or where? I am, Sirs, yours faithfully,

HERBERT R. SPENCER, M.D. Lond.

Harley-street, W., Nov. 2nd,

RE SPASTIC PARAPLEGIA AND RETINITIS PIGMENTOSA: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—With reference to the account of the proceedings of the Society for the Study of Disease in Children in THE LANCET of Nov. 2nd, p. 1200, the report of my remarks is misleading and may give rise to confusion. De Amicis (of Naples),[1] in a paper on the Relationship of Spastic Paraplegia (Little's disease) with Syphilis, gives the details of a case of spastic paraplegia in a boy, aged three years, whose father and mother had undoubtedly suffered from syphilis. I did not say that in de Amicis's case there was retinitis pigmentosa. I referred to it as in favour of the syphilitic origin of the case of spastic paraplegia with retinitis pigmentosa shown for Dr. Garrod, in which the eye condition was considered to be suggestive of syphilis.

I am, Sirs, yours faithfully,
GEORGE PERNET.

Upper Gloucester-place, N.W., Nov. 2nd, 1901.

ACUTE DILATATION OF THE STOMACH.

To the Editors of THE LANCET.

SIRS,—The letter of Dr. William Ewart in THE LANCET of Nov. 2nd, p. 1228, upon acute dilatation of the stomach has suggested another reference to the cases mentioned by me. It was not until I had left the post-mortem room, after examination of the more recent case, that I remembered having read of the theory that obstruction of the duodenum may be occasioned by pressure from the superior mesenteric artery, and the possibility of such a cause for the dilatation was, unfortunately, not definitely excluded. The duodenum was, however, less distended in the third part than in the first and second portions, and the jejunum, although not abnormally distended, was certainly not collapsed. In the other case mentioned in my letter it was also the first part of the duodenum which was most markedly distended.

The theory to which Dr. Ewart has drawn attention is interesting, but it is difficult to believe that so simple a form of obstruction can lead to a distension of the stomach which may bring the greater curvature as low as the pubes. Theories which attribute morbid conditions of the digestive tract to the influence of the nervous system are perhaps vague, but it is not easy to account for some of these conditions unless one believes that the nervous system has played some part in the causation. For example, I have seen in two instances extensive hæmorrhage into the coats of the small and large intestine extending without a break from the junction of the duodenum and the jejunum to the hepatic flexure of the colon. The fact that the transverse colon was unaffected showed that the whole of the area of the distribution of the superior mesenteric artery had not been involved in the hæmorrhage, and careful examination of the superior mesenteric artery and vein, together with their branches, revealed no trace of either embolus or thrombosis. The precisely similar distribution of the hæmorrhage in these two cases—a distribution which did not closely follow the area of supply of a blood-vessel—suggested that the nervous system had played some part in the causation of the bleeding. It also suggested that the jejunum and ileum possess an innervation which is presided over by centres which govern also the innervation of the cæcum and ascending colon. If this be true then the stomach and duodenum may also possess an innervation common to both, disturbance of which, while not primarily responsible for some morbid condition of these viscera, may occasionally determine its nature. In the two cases of acute dilatation of the stomach and duodenum mentioned by me the primary cause of the dilatation appears to have been the septicæmia which was present.

I am, Sirs, yours faithfully,
THEODORE FISHER.

Clifton, Bristol, Nov. 2nd, 1901.

[1] Archiv für Dermatologie und Syphilis, 1898, with bibliography.

THE MENTAL FUNCTIONS OF THE BRAIN.

To the Editors of THE LANCET.

SIRS,—I have to thank you for the review of my book on "The Mental Functions of the Brain," which appeared in THE LANCET of Oct. 19th, p. 1051. If, as your reviewer says: "The work is a pretentious one and its claims are of an exceptional character," it seems to me a pity that he should have ignored one-third of it, containing some important statements, which—if they are not true—require immediate contradiction. It is stated in the book:

1. That there is not one man of scientific repute who has written anything which would indicate that he has examined Gall's chief work on the Anatomy and Physiology of the Nervous System. 2. That Gall's discoveries, anatomical and physiological, particularly the former, were ignored even by his most scientific followers, so that the world is ignorant of them. 3. That any one of the numerous anatomical discoveries, presented for the first time in this book, should have sufficed to bring Gall fame, but that there is not one text-book in the United Kingdom dealing with the anatomy of the brain which even mentions his name. 4. That his localisation theory has been misrepresented throughout the past century and most actively by those who found the principles of his doctrine useful but wished to hide the fact to escape the popular bias against phrenology. 5. That as a consequence of this foolish opposition for a whole century we still disagree even as regards such a fundamental localisation as that of the *intellect*. One school considers the frontal lobes to be the seat of the higher intellectual operations, another the occipital lobe, Rüdinger the upper part of the parietal lobe, Professor Cunningham[1] the lower part of the parietal lobe. Whereas Gall has collected for many of his investigations clinical, pathological, and experimental evidence, some of the recent observers advocate the method of looking for "protuberances." 6. There are many other important statements in the book. To give one more example, Gall has described the first genuine case of "aphasia" (see p. 230), yet we still give Broca the chief credit, and those who acknowledge Gall often speak of his discovery as a "mere happy guess."

By ignoring this part of the book your reviewer makes it appear as if I were reviving the phrenology of the self-styled "professor," and thus, unintentionally, excites the prejudices of the readers of his review against the book.

Now as to the "*several*" post-mortem records which I am supposed to quote in support of the theory that the lesion in irascible insanity and violent mania is to be found in the temporal lobe. My "several" records number 350, the majority of them being injuries to the temporal area, localised tumours, and circumscribed inflammatory disorder. The minority are cases in which a lesion took place in some adjoining part, but involved the temporal lobe by extension. Your reviewer selected one of the latter cases as a "typical instance of my method of stating facts and deducing conclusions." Unfortunately this is one of the three cases (out of 800) which got into the book by some error and was marked by me for "revision" or "omission" for the second edition. I acknowledge my responsibility, but to describe this case as typical of the 350 quoted in favour of the localisation of irascible insanity is clearly a misrepresentation. I have had to quote my cases as I found them in the clinical records, foreign cases having been translated and the British cases left unaltered except for the condensation where necessary, so that in most cases the authors themselves are responsible for their records.

However opinions may vary as to the value of the deductions at which I have arrived your reviewer is the first not to acknowledge the vast amount of material which I have collected in this book for the benefit of future investigators; and considering the absence of positive knowledge as regards the mental functions of the cortex, the growth of the brain, the significance of its size and weight, investigators can little afford to sneer at an honest attempt at an elucidation of these problems, such as I have made.

I am, Sirs, yours faithfully,

London, Oct. 21st, 1901. BERNARD HOLLANDER, M.D.

[1] See Presidential Address, British Association (Anthropological Section), Glasgow, September, 1901.

THE ETHICS OF THE PUBLIC VACCINATOR.

To the Editors of THE LANCET.

SIRS,—Owing to the complaints one hears upon all sides as to the elastic manner in which some of the public vaccinators are interpreting the duties of their office I have ventured to submit to you a series of questions which are not without interest to general practitioners at the present time.

1. Should a public vaccinator who is appointed to a definite district vaccinate anyone who comes to his house, irrespectively of where they reside, or should he find out their address and refer them to the public vaccinator of that district?

2. Can a public vaccinator charge the authorities for work done by his qualified assistants to whom he pays a salary of three or four guineas a week?

3. Should a public vaccinator interview the principals of large firms where he knows there is a regular medical attendant and induce them to allow him to vaccinate their employés under the plea of gratuitous operation?

4. In the event of his vaccinating a large staff should he ascertain whether any of the members who live at home would prefer to be vaccinated by their own private medical attendants?

5. If when making a house-to-house inspection a public vaccinator finds that certain of the inmates intend to be vaccinated by their own medical men, is he justified in persuading them to be operated upon by himself on the grounds that he will do so free of charge?

6. Is it a professional act for a public vaccinator to attract children by means of chocolates, apples, &c.?

Will you kindly publish the fees which are now being paid per head to public vaccinators in the different districts of the county of London. The medical profession will have to pay their share of the vaccination rate, and this in some cases will mean paying for the vaccination of our own patients.

I am, Sirs, yours faithfully,

Nov. 4th, 1901. GENERAL PRACTITIONER.

A SANITARY OUTRAGE.

To the Editors of THE LANCET.

SIRS,—Will it be believed that the Westminster City Council erected two stands for themselves and their friends in the Green Park opposite Devonshire House over the two public urinals which exist at that spot, necessitating the closing of these necessary conveniences for the whole of Friday and Saturday last? Their friends doubtless appreciated the invitation to lodge in the W.C. district and, I hope, enjoyed their visit, but I should like to know whether the Westminster Council had the right to interfere with the comfort of thousands who were thus forced to relieve the wants of nature in the neighbouring park.

I am, Sirs, yours faithfully,

Nov. 4th, 1901. AN OLD PRIVY COUNCILLOR.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Epidemic.—Plague Administration in Bombay City.—The Famine and the Rains.—Deaths from Wild Animals.—The Victoria Scholarship Fund for Training Native Midwives.—Cocaine-eating in Bengal.

THE mortality from plague throughout India is still increasing. The outbreaks in the Belgaum and Dharwar districts of the Bombay Presidency have further developed and account for the greater number of deaths. The disease, moreover, is spreading in the Punjab and at Poona. For the latter health camps have again been opened. Since the recrudescence which commenced in August 112 cases have been reported. In the Punjab the cases have increased during the past week from 181 to 301, and 15 deaths are reported from the province of Jummu. In Bombay city the deaths from plague are somewhat fewer, and in Calcutta the number fluctuates week by week between 12 and 20.

A great change is in course of operation in the plague administration of Bombay city. The Commissioner still remains the head of the department, but immediate

orders will now issue from the health officer. The same policy will be pursued, but it is hoped that plague will be treated under the Municipal Act as an ordinary epidemic disease and as such will be properly dealt with by the Health Department to the exclusion of any outside interference. This is as it should have been treated from the very first. The same arrangement would be equally applicable to Calcutta. In Bombay an army officer has hitherto controlled operations. Now that all heroic measures have been suspended a separate organisation for plague is not wanted. There will also be a considerable saving in expense—a matter of no small importance for other places as well as for Bombay.

It is hardly realised at home that the famine still continues and that there are about 300,000 people receiving relief. The past season has not been everywhere favourable. Baluchistan has had only a tenth of its normal rainfall, Gujarat only one-third, Central India and Rajputana about a half, while parts of the Deccan are 20 per cent. behind.

The mortality from wild animals in India is another matter not fully recognised. Last year it was very large. Snake-bites are reported as having caused 22,393 deaths and bites of leopards and jackals 980 deaths. Tigers killed 943 people, elephants 36, bears 97, and wolves 424. Parts of Bengal suffer most from tigers, one man-eating tiger having caused 47 deaths. In addition to human beings there were no less than 81,890 head of cattle killed. It is satisfactory to learn that 17,250 wild animals were destroyed besides 88,232 snakes.

The Victoria Scholarship Fund for training native midwives in India continues to receive widespread support and up to the present time over five lakhs of rupees have been subscribed. Judging from the death lists issued in some of the cities the total mortality of women in childbed must be enormous, and it is probably as great, if not greater, in the rural districts. Crass ignorance and filthy habits seem to be the causes of this high mortality.

The habit of cocaine-eating seems to have spread extensively among the natives of Bengal. The ordinary *pan*-sellers are the chief distributors. It is sold in small paper packets containing either half a grain or one grain which are obtained for half or one anna respectively. It is impossible to say how much is consumed by any one individual, but several grains a day have been confessed to. The sense of feeling well is followed by depression, but the habit appears to be peculiarly seductive, and once commenced is with the greatest difficulty abandoned. A blackening of the teeth is said to be caused by cocaine-eating and the blackening is thought to be characteristic. It is said to be most marked in the lower teeth and on the inner or posterior surface, and to be quite different from dirt or the staining of tobacco. The general symptoms are those of cachexia with a sallow look, sunken eyes, and emaciation.

Oct. 19th.

THE LEGAL STATUS OF MIDWIVES.

(FROM A LEGAL CORRESPONDENT.)

[OUR readers have had so many occasions of hearing our views on the midwives question that they will know how far we can go with the opinions expressed in the following article. But it is well that they should read the public view of the question temperately and logically expressed.]

Judging from the correspondence in the medical press and the addresses of some of the candidates for election as Direct Representatives on the General Medical Council much misconception prevails amongst medical practitioners as to the existing legal status of midwives. Mr. George Brown, for instance, who is seeking re-election to the Council, having taken full credit in his address for his opposition to the Midwives Bill of last session, proceeds thus: "Much will depend upon the votes recorded in this election, and you may rely upon me that my opposition to legalising midwives as independent practitioners will be as keen as ever, and I should like both midwives and all unqualified practitioners made legally responsible for any damage they may cause to mother or child or any other person." Mr. Brown's colleague, Mr. George Jackson, having referred in his address to the action he took at the last election to the Council, goes on to say: "I am now as then opposed to the registration of midwives, the creation of an inferior order of practitioners." These two candidates for the honour of directly representing their profession on the General Medical Council have apparently yet to learn that midwives *are* fully "legalised as independent practitioners," that "both midwives and all unqualified practitioners" *are* "legally responsible for any damage they may cause to mother or child or any other person," and that this particular "creation of an inferior order of practitioners" was accomplished several centuries ago. When the order of midwives was created it would be as difficult as useless to discover, but we do know that here in England some four centuries ago the bishops, who were then the licensing authorities for physicians and surgeons, licensed midwives also. They continued to license surgeons and midwives down to the middle of the eighteenth century. The College of Physicians of London about that time took over from the bishops the charge of examining and admitting midwives to practise, a charge which they renounced some 80 years ago. Since that time any person who chooses may undertake the important duties of midwife. No test of competency for the office is imposed by any responsible authority and so the public are left to such protection as the common law affords against the *malpraxis* of uninstructed practitioners.

By the common law of England a person is entitled to practise in any profession or business which he thinks fit to adopt, but he practises at his peril—that is to say, if he is grossly ignorant of the profession or business of which he holds himself out to be a master he is liable to be punished by fine or imprisonment as guilty of a misdemeanour, whilst the injury suffered by any person from such ignorant practice is a private wrong for which damages are recoverable. In the case of one undertaking the office of a midwife, as in that of a registered medical practitioner, the law implies not that she will bring her patient safely through the perils of childbirth, but that she will use reasonable professional skill and due diligence to that end (Lanphier *v.* Phipos, 8 C. & P. 475). When, however, the practice of a profession is of such a nature that the incompetency of the practitioner is always attended with dangerous consequences and not infrequently with irremediable or even fatal consequences the common law protection is plainly inadequate. Hence the necessity of prescribing by statute the qualifications of those who enter such profession. This has been done in the case of the medical profession by the Medical Acts of 1858 and 1886; and chemists and druggists have been brought under similar statutory control. That midwives have not yet been brought under any statutory control, notwithstanding the dangerous nature of their duties, is, I consider, a serious defect in medical organisation. The Medical Act of 1886 which made it obligatory on all candidates for medical registration that they should pass a qualifying examination in midwifery of such a standard of proficiency as to guarantee the possession of such knowledge and skill as is requisite for efficient practice made no provision for regulating the business of midwives and bringing it under the supervision of the General Medical Council or some other body created *ad hoc*. This omission remains to be repaired. Although at the bottom of the medical hierarchy the midwife cannot be ignored. Unlike the unregistered medical practitioner she can recover reasonable remuneration for her services in a court of law. Such services have been held in a recent case to be "medical or surgical assistance" within the meaning of that phrase in the Medical Relief Disqualification Removal Act, 1885 (48 & 49 Vict., c. 46), (Honeybone *v.* Hambridge, 18 Q.B.D. 418).

It must be confessed that little progress has been made in recent years towards the settlement of the midwives question. The want of an examining and licensing authority for midwives has been long felt by a section at least of the medical profession. In a learned treatise on medical jurisprudence published in 1823, the joint work of an eminent Fellow of the College of Physicians and of a distinguished member of the bar,[1] there is this footnote to the case of Dr. Letch *v.* College of Physicians: "It is said that the College [of Physicians] have determined not to interfere for the future with the licensing of midwives; the policy of this resolution is very questionable, for the examination and licensing of persons in all branches of medicine is a public duty imposed upon them which they are not at liberty to abandon or execute at their pleasure. It may be urged that

[1] By J. A. Paris, M.D., F.R.S., F.L.S., F.R.C.P., and J. S. M. Fonblanque, Barrister-at-law.

this branch is rather surgery than physic, but as the College have once assumed the jurisdiction it is doubtful whether they ought to relinquish it. The surgeons might also disavow their obstetric brethren and then the matter must revert as of old to the bishops who cannot be supposed to be the most competent judges of the necessary qualifications." Recurring to the subject under the head of "Midwifery" the learned authors observe: "We have before noticed that there is some probability that both the College of Physicians and the College of Surgeons will decline all future interference with this branch. If so it will be necessary that some new authority should be instituted for the purpose of examining and licensing candidates for practice; the duty to be performed is by far too dangerous and delicate to be left in the hands of any who would assume it, yet such is at present the case, and not without fatal examples of the errors and imperfections of our lego-medical system." Referring to the voluntary organisations of their day for the training of midwives, they add: "We do not, of course, include in this censure the private institutions for the instruction of midwives in which the want of a public provision is endeavoured to be compensated; but the operation of such societies must be of necessity very limited and utterly inadequate not only to the demands of the empire, but to the magnitude of the metropolis."

This might very well be written to-day, so little has it lost in force by the efflux of time. The licensing of midwives is still the *quæstio vexata* it was when these learned authors wrote. There is no justification for it remaining so. The General Medical Council has been created since then and might well have its jurisdiction extended so as to include the supervision of midwives. There is no insuperable difficulty in framing such a definition of a midwife's office as will exclude the possibility of her infringing on the sphere of the medical practitioner. An ignorant untrained midwife is far more likely to embark on rash and reckless treatment of her patient than one who knows from the training which she has received when the case has passed the limit of her skill and should be attended by a medical practitioner.

SANITATION AT EDINBURGH.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

(Concluded from p. 1160.)

WHILE the corporation have displayed so much public spirit and enterprise in creating what may be described as a palatial fever or isolation hospital, private charity and enterprise have conferred on Edinburgh the honour of being the first town in Scotland which has attempted to establish a sanatorium for the outdoor treatment of pulmonary tuberculosis. The Victoria Hospital for the Treatment of Consumption was opened on March 31st, 1900. In Scotland some 7000 deaths are annually attributed to this disease and it is reckoned that the mortality from this cause is equal to about 500 deaths annually among the inhabitants of Edinburgh. To ascertain the number of persons actually suffering from this disease these figures may be multiplied by 10. In his last annual report the medical officer of health, Sir Henry Littlejohn, states that phthisis caused 548 deaths in 1900 in Edinburgh, and there were 270 deaths from other forms of tuberculosis. In dealing with this scourge Sir Henry Littlejohn follows the lead of the continental sanitary reformers and insists that the authorities should exercise all their influence to prevent expectoration in the streets and on public conveyances. He also points out that as the system of flats prevails in Edinburgh the common staircase is a source of danger. This remark, it seems to me, applies more to the better-class houses than to the new or model artisans' dwellings. In the latter the staircases are generally exposed to the open air and are not protected by windows. In some high-class houses let out in flats I have found the staircase very dark and the windows generally closed. Such staircases should, therefore, be kept scrupulously clean so that the dust from them should not be conveyed into the apartments. The staff of sanitary inspectors have received instructions in regard to this matter, but it does not seem as if anything effective has been accomplished. To expectorate in a dark, badly ventilated, and not very clean staircase may amount to laying on phthisis just as water or gas is laid on to a house. The Edinburgh Health Committee have issued upwards of 30,000 cards warning the inhabitants of the danger and indicating a few simple precautions. The railway companies have also been approached and the municipal tramways servants have instructions to prevent spitting on the floor of these vehicles.

As with the isolation of infectious fever cases, so also in the treatment of phthisis, a double advantage is secured. Not only does the patient benefit by a better chance of recovery, but there is less danger of his spreading his complaint to others. The system of house accommodation in Edinburgh, together with the climate, afford but small prospect of recovery. According to Sir Henry Littlejohn the principal hope rests in the early recognition of the disease and immediate departure for foreign countries and for high, bracing plateaux. But this is only possible with the wealthy. Sir Henry Littlejohn, however, raises the question as to whether the town council would be prepared to incur the expense of sending abroad experimentally some hundred or more carefully selected patients from among the poor, but he thinks that our colonies might object to receive these damaged lives. For my part, I would suggest that it is not absolutely necessary to go to the colonies. In Switzerland and on the Riviera there are many places which depend for their very existence on the presence of a large number of phthisical patients. There is no reason why these countries should object to hospitals established by foreigners with foreign money any more than they do to their own similar institutions. Such action should not be opposed, for it would be an excellent advertisement for the whole neighbourhood. The principal difficulty is a question of finance, and this would be met if the number of definite cures obtained was such as to constitute a considerable relief to the rates and to the charities of the town or district that ventured upon so bold an enterprise.

Sir Henry Littlejohn also raises his voice on behalf of the respectable citizen who has earned his living and has paid his taxes regularly, but who, having contracted phthisis, is dismissed by his employer. Should such a man be ultimately driven to the workhouse or should the town council provide some resting place "where, though the case is hopeless, every effort would be made by medical skill and comfort to afford ease of mind and body, while the family, relieved from the cares of nursing and the expense of maintenance of an exacting invalid, would be able to make fresh arrangements for keeping the household together and fighting the battle of life." Putting the claims of humanity aside and considering this proposal from the mere utilitarian point of view, the carrying out of some such suggestion might, in the long run, prove the cheapest. It might prevent whole families from sinking into the pauper ranks and would lessen the risk of spreading the disease by doing away with a centre of contagion. Sir Henry Littlejohn has also come to the conclusion that compulsory notification of consumption should be enforced. He claims that Edinburgh was first among the large towns to promote, in 1879, a private Bill for the compulsory notification of infectious diseases. This spirited action so helped to spread education on the subject that, in 1889, the Government was able to pass a similar Act applying the principle of notification to the whole country; and now it is urged that Edinburgh should again take the lead by having this principle extended to cases of pulmonary consumption.

Apart from such endeavours to prevent the spread of phthisis, Edinburgh, as already mentioned, has taken the lead, so far as Scotland is concerned, in applying the most recent methods to effect the cure of phthisis. The promoters and patrons of the Victoria Hospital for the Treatment of Consumption in their last annual report maintain that thousands of persons unnecessarily lose their lives and slowly sink into a state of physical and financial bankruptcy because there are not any means available by which they can obtain proper treatment. This is the more deplorable as the record of sanatoriums in all parts of the world show that cures can be effected by the open-air system of treatment. Even now it is only on a very small scale that Edinburgh has found the means of practically demonstrating what can be done. Though the first hospital in Scotland for the outdoor treatment of phthisis claims that it is not a local but a national institution, it only possesses 23 beds. Already for one patient admitted there are at least 10 applicants. Fortunately the grounds secured are sufficiently spacious for other buildings to be erected. A beautiful park which slopes towards the south has been obtained and the residence has

been converted into a hospital. Already and during the first three months an annex has been built and furnished, holding eight patients, for the small cost of £800. Every £1000 obtained will provide accommodation for from eight to 10 more patients. So great was the demand that a system of visiting patients had to be organised. The latter do not sleep at the hospital, but they remain there all the day, profit by the treatment, and enjoy the hospitality of the institution. Of course this is not so satisfactory, for the *régime* cannot be properly carried out at night by the patients in their own homes.

From March, 1900, to March, 1901, there were 115 indoor patients. With but few exceptions all those who resided in the hospital progressed satisfactorily and "a considerable proportion have, on discharge, been able to resume regular work." These latter are not lost sight of but are encouraged to report themselves from time to time. The outdoor patients are given printed instructions concerning the treatment and prevention of the disease and thus useful educational work has been done. The bedridden patients are visited in their own homes by the outdoor medical officer and he always makes a point of instructing the friends and relatives how to limit the spread of the disease. Then there is a Samaritan Committee giving financial help where there is need.

When I visited this hospital it was the morning following a boisterous night. In one of the rooms I found a large pool of water on the floor. This was caused by the rain which had been blown in through the window left wide open in spite of the patients who had slept in the room. Now the patients were all out in the gardens sitting over the wet grass and wherever they could catch the fleeting sunbeams. Several of them had bared their chests to the sun and the skin was brown through constant exposure. Some of the patients had slept out all night in wooden structures shaped like Dutch ovens. These can be moved so that their backs are against the wind and thus the rain does not fall on the beds, which on the front side are in no wise sheltered. Dr. R. W. Philip, physician to the hospital, showed me a number of charts which set forth the wonderful and rapid reduction of temperature which follows on the outdoor treatment. Within two or three weeks the night sweating also, and almost invariably, disappears and this without the use of any drugs. The loathing for food is replaced by a greedy appetite. The weight of the patient increases, his colour improves, and cough and expectoration become less and less frequent. Dr. Philip further states that there is no limit to the application of the method "provided there is a wise discrimination in respect to details." The results vary in degree; improvement is the rule but a permanent cure can only be expected in cases of pulmonary tuberculosis which are taken in hand sufficiently early. Perhaps the most remarkable fact about this hospital is its successful establishment in such an unlikely climate as that of Edinburgh. If the outdoor treatment is feasible in such bleak and northern latitudes, how much more effective might it become in sunny latitudes where the climate would be a natural ally to the methods employed.

Apart from these specific and direct endeavours to reduce the prevalence of pulmonary tuberculosis, it is notorious that general sanitary improvements have greatly mitigated the fatal effects of this disease. Prominent among such reforms is that of the better housing of the poor. In the city of Edinburgh this question has not been neglected. £150,000 have already been spent under the Housing of the Working Classes Act. Whether this money has been wisely spent is another question. In any case some of the city fathers freely recognise that grave mistakes have been made. Certain it is that the worst portion of the sore has not been touched. It has been argued that the houses put up by the corporation were too good. Slums were demolished but the inhabitants of these slums have not been re-housed. As is usually the case a much better class of tenants came and inhabited the model dwellings erected on the sites of the ancient slums. At present it seems as if no attempt is made to deal with the residuum. The lowest class object to the corporation tenements on the ground that they are too bright, too clean, too good, and that they have not furniture decent enough to put in them. More important than these objections is the fact that they do not want to live clean, decent, orderly lives and dread the control which the municipal authorities might attempt to exercise over them. In this respect the Edinburgh Corporation have hit upon an expedient which, just because it gives excellent results with a more respectable class of tenents, is well calculated to drive away the disreputable residuum. Instead of collecting the rents themselves or appointing a factor to do so this work has been intrusted to a philanthropic society. Ladies belonging to the Edinburgh Social Union receive a commission of 5 per cent. for collecting the rents; but they do much more than merely collect the rents. They strive to become the friends and advisers of the tenants, helping them by timely suggestions to keep their homes clean, tidy, and healthy. It has been my privilege to visit several of these municipal tenements and the order that reigned within was certainly superior to the general run of habitations frequented by the same class of tenants. But all this leads to the institution of a process of selection and thus the municipal housing scheme has resulted in help being given to decent labouring men who are honestly striving to do their best with the slender means which they possess. Of course, this in a sense is very satisfactory, but it does not meet the great sanitary problem created by the thriftless disorderly residuum whose overcrowded, dirty, unhealthy homes are a perpetual menace to the health of the community. This, the lowest, section of the population is still left to occupy the old houses which have degenerated into tenement dwellings.

In dealing with this most difficult problem the town of Edinburgh possesses special advantages. It has under local Acts unlimited borrowing powers. Strange to say the only limit imposed is in regard to electric lighting. Money for this latter purpose cannot be borrowed except with the assent of the Secretary of State for Scotland. Further, as there is no limit to the powers of assessment which the corporation possess they are able to borrow at a cheaper rate. On the other hand, the local Act enforces the repayment of moneys borrowed for housing schemes within a lapse of 30 years. The result is that these schemes cannot be made to repay the cost in so short a time and therefore a part of the expenditure has to be raised out of the rates. But as yet this has only involved the citizens of Edinburgh in an extra rate of a halfpenny in the pound. The gross rental of the four schemes that are now completed is £2066. The general and working expenses, the taxation, repairs, and maintenance, are set down at £512 annually and the interest on the loan amounts to £1350 and the sinking fund to £1530. These make a total of £3392, and, deducting the income, an annual deficit of £1326 is shown, which has to be charged on the rates. No ground-rent has to be paid because the ground belongs to the old borough of Edinburgh. By this it will be seen that the community is paying to-day for the creation of a property which at the end of the 30 years will be profitable. All this, however, does not meet the most urgent need. Taking the annual report for 1899 drawn up by Mr. John Cooper, the borough engineer, it will be found that this deficiency is frankly acknowledged. He admits the improvement effected in the sanitary condition of the new houses, but he adds that "people cannot live on sanitary conditions alone, however superior." The labouring man, if in work all the year round, might earn a maximum income of 24*s.* a week. It would be still more than the average if his income was estimated at 20*s.* a week and it would not be prudent to expect more than a tenth of this, or 2*s.* a week, for rent. In actual practice, however, a regular payment of 2*s.* a week for rent cannot, Mr. Cooper says, "be considered as at all reliable." There are, he insists, many respectable families whose incomes are very precarious and fall considerably below £1 a week. The rentals of the model dwellings provided vary from £5 to £10 10*s.* per annum, or about from 2*s.* to 4*s.* a week. They are, therefore, better suited for the skilled artisan than for the labourer. To reduce the cost Mr. Cooper suggests that, in dealing with a slum area, the powers conferred by the Housing of the Working Classes Act are not designed to enable house factors and owners of property to allow dilapidations and insanitary conditions in the hope that the local authority will ultimately be compelled to buy up such property at from eight to 12 years' purchase for the purpose of pulling it down. Such a course would defeat the purpose of the Act. When a property is really uninhabitable the compensation paid should be based on the value of the building materials, less the cost of removal, and the site occupied. This and not more, the borough engineer insists, should be paid for such insanitary houses. Even on these conditions the land in central positions would be too expensive and the Corporation of Edinburgh are seriously considering whether they should not avail themselves of Part III. of the Housing of the Working

Classes Act to purchase unoccupied suburban areas and run cheap means of transit to these localities. There are still some 2000 acres of land within Edinburgh, exclusive of parks and gardens, which have not been built upon, and recent legislation has conferred the power to purchase outside the municipal boundaries. Thus, taking all these circumstances under consideration, it may be said that the Corporation of Edinburgh have barely passed the threshold of the great question which is perplexing the municipalities of all the great and populous centres.

In regard to other sanitary work it may be said that the registration of plumbers combined with active sanitary inspection have greatly contributed to improve the domestic drainage of private houses. The public sewers, however, are probably in need of considerable improvements. Some sewers are well graded, consist of pipes in which the sewage runs freely, and few if any deposits are made. Others, on the contrary, are stone-built, rough, and likely to retain heavy substances, though, on the whole, there are but few complaints as to bad odours. Nevertheless, it seems evident that the system of ventilation, or the traps, are not always efficient. Mr. Cooper relates that some refuse from an oil-gas manufactory found its way into the St. Cuthbert's-lane sewer and thence into the Nor' Loch outlet sewer. It came in contact with some heated liquid and a strong smell of paraffin resulted. This was not confined to the sewers and sewer ventilators, but very rapidly invaded the cellars and front areas of a great number of houses—a fact which showed that many connexions between private houses and the sewers were defective. Improvements were consequently effected here and there which might have been neglected but for the accident that rendered their necessity so evident. Considering that Edinburgh is a very old town and that the sewers have been built at different epochs, some being very ancient, there are probably many discrepancies. It would be well, therefore, if all the sewers could be examined, a complete survey of the whole system taken, and a detailed report given. Doubtless this will be done at no very distant date. Though there still remains much to engage the activities of sanitary reformers, Edinburgh has acquired a prominent place among the towns that have set a good example.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Precautions against Plague.

ALTHOUGH no cases of plague have, so far as is known, occurred in Manchester, it is satisfactory to learn that the authorities are taking proper precautions. Dr. J. Niven has issued a circular to the medical practitioners in which he draws attention, as a matter of the gravest kind, to the great number of rats in Manchester, as in other large cities, and to the condition of the middens and ashpits. He also says that increased attention should be given to the cleansing of dirty houses and that the powers possessed by the corporation should be freely used to enforce it. As a matter of precaution plague should be added to the list of notifiable diseases, to which also in the actual presence of the disease it would be desirable to add pneumonia. Mr. C. H. Tattersall has also issued a somewhat similar circular to the medical practitioners of Salford. Dr. Pringle, medical officer of health of the port of Manchester, read a special report yesterday to the port sanitary authority in which he said that from the preventive point of view rats presented much greater difficulty than man. By the Cholera Regulations of 1897 Liverpool was bound to inspect all ships coming from foreign infected ports, to isolate any cases of plague discovered, and to disinfect the ships. Dr. E. W. Hope, medical officer of health of Liverpool, has assured Dr. Pringle that Manchester-bound ships from infected ports should receive every attention. All ships from infected ports are now to be moored at a certain distance from the dock walls and the cables are to be provided with rat-guards. He recommended fumigation with sulphur for killing the rats on board ship. In order to supervise the barges and flats he said that another inspector should be appointed, and that the length of the port (36 miles) rendered the acquisition of a steam launch almost a necessity. There is no doubt that the port authority are quite alive to the importance of preventive measures against one of the "most terrible scourges" to which man is liable, and that Dr. Pringle's suggestions will be promptly carried out.

Water-Supply.

With the long-continued deficiency of rainfall over the Longdendale gathering area the water-supply of Manchester has been gradually lessening, and yesterday there was only enough water for 20 days. The weather, of course, is uncertain, and it may change at any time, but it looks as if there would be a continuance—when outside the Manchester smoke and fog—of fine bright days and nights. Thirlmere can only give the 8,000,000 gallons daily brought by one pipe, though there is plenty and to spare in the lake, and so it seems to mock us as Tantalus was mocked.

Unprotected Fires.

At an inquest held at Bury last night on the body of a child who died from burns the coroner said that the Coroners' Society had been collecting statistics which showed that "something like 75 per cent. of the burning cases in relation to children had been caused by the fire-grates being unprotected." He fancied that it would not be long before parents would be compelled to guard their fires. For the children's sake it is to be hoped that he is not too sanguine.

Health Teaching in Board Schools.

On Oct. 4th a deputation from the Manchester and Salford Sanitary Association attempted to induce the Manchester School Board "to consider the advisability of teaching hygiene in its schools." Dr. Sawers Scott acknowledged the work of the corporation in supplying good water, baths, and wash-houses, in widening the air space of houses, and in the matter of sewage disposal. But all these things were useless unless the people were taught the value of cleanliness and the danger of sleeping where the windows and means of ventilation were obstinately kept closed. The association had for many years tried lectures on hygiene, "but had not reached the right people." He was supported by Mr. Horsfall, by Dr. Hewitt (who spoke of the ignorance of young mothers as to the feeding of children), and by Dr. R. B. Wild, who called attention to the prevalence of ringworm and the increase of skin disease. Dr. Emrys Jones referred to the defective eyesight of many school-children leading to their being set down as stupid and being punished. He stated that the method adopted in Salford of testing the eyesight of the children had had good results. Dr. A. W. W. Lea said that in New York and other cities the daily medical inspection of the schools and scholars had resulted in a great diminution of measles, scarlet fever, diphtheria, and skin affections. The chairman thanked the deputation for the clear way in which various points had been put and said that "if the Board had been guilty of any oversight in the past it had been through want of fresh information." But surely it is the duty of school boards to seek information and not to wait the advent of deputations from such voluntary bodies as the Sanitary Association.

Nov. 5th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Herefordshire Medical Association.

THE annual meeting of this society was held at Hereford on Oct. 30th, Mr. H. Cecil Moore being in the chair. Dr. Gerald R. Leighton read a paper upon Snake-bite in England in the course of which he said that any case of snake-bite in this country which shows signs of venom symptoms if due to a British species must be the bite of an adder (*Vipera berus*). The bite almost always occurs from the person bitten being unaware of the proximity of the adder, which is doing its best to escape observation. The hand or the ankle is the part usually affected, as the bite generally occurs through the person picking up something off the ground near to the reptile or through treading on, or near, it. The resulting symptoms depend more upon the actual amount of venom injected than upon such circumstances as the heat of the day, or the state of health or the age of the patient. Death may result very rapidly from heart failure when the dose of venom is sufficiently large. In other cases the symptoms usually seen are pain at the seat of puncture and extending up the limb, with lymphangitis, symptoms of local and general blood-poisoning, vomiting, photophobia, and nervous symptoms. If the

patient survives three days recovery is usual. As the venom of the adder, unlike that of the cobra, does not pass through animal membrane, the wound may be sucked with impunity. There is no latent period in adder-bite as in cobra-poisoning, death being rapid and symptoms instantaneous in fatal cases. Dr. Leighton considers that in the absence of an antitoxin no definite treatment can be adopted beyond such as is suggested by the symptoms as they arise.

West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health.

At the annual meeting of the West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health, held at Bristol on Oct. 31st, Dr. J. Howard-Jones of Newport was elected secretary. Mr. J. C. Heaven of Bristol, who has been secretary for the past seven years, is the president for the present year, and in his presidential address dealt with the question of Prevention of Disease, elaborating and emphasising the dictum of Professor Koch at the British Congress on Tuberculosis that it is a great blunder to treat pestilences uniformly. A large portion of the address was occupied in discussing the measures which should be taken in order to prevent the spread of diphtheria, and special attention was drawn to the necessity for the competent inspection of contacts who should have not only their throats but their nasal cavities examined for the purpose of ascertaining whether they are free from Klebs-Löffler bacilli. The frequency of nasal diphtheria without obvious symptoms is only now becoming recognised, and this lack of recognition is doubtless due to the absence in many districts of properly equipped public health laboratories. That the condition does exist is manifest from two instances related by Mr. Heaven. Owing to an outbreak of diphtheria in a Bristol school he examined the children in attendance and found among them 15 cases of diphtheria, 11 of which were nasal without constitutional symptoms, unrecognised and able to go about and to spread the disease freely. After the exclusion of the infected children from the school and its closure for the Easter holidays the outbreak ceased. In another school among 12 children examined, in seven of them bacilli were found in the nose only, in three in the throat only, and in two both in the throat and nose. Mr. Heaven is of opinion that the increase of diphtheria in towns and the failure to control its spread may be largely attributed to the non-recognition of the facts that diphtheria is capable of assuming every grade of severity, that it is the mild, unrecognised cases that are chiefly responsible for the spread of the disease, and that it is not by any means only in the throat that unrecognised cases occur. There are unfortunately many opportunities in other parts of the country for dealing with outbreaks of diphtheria upon the lines laid down by Mr. Heaven who is to be congratulated upon the energy and persistence which he has displayed to secure the isolation of "carriers" of the disease.

Prevention of Consumption.

It was stated in THE LANCET of Oct. 26th, p. 1160, that a sub-committee of the Bath Board of Guardians had been appointed to confer with the Bristol Guardians as to the practicability of the two boards jointly providing an institution for the treatment of phthisical patients. The result of the conference having been reported to the Bath board on Oct. 30th, it was decided not to combine with the Bristol board, but to treat the Bath patients in a building adjoining the workhouse, when it is estimated that if the average number of patients under treatment is 10 the cost per patient will be 13*s.* 3*d.* per week, or reduced to 11*s.* per week if the average number is 20. The Herefordshire Medical Association have appointed a sub-committee to consider the desirability of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Pontypridd Workhouse.

Notwithstanding several communications from the Local Government Board and the recommendations of their own medical officer (Mr. Howard Davies) the Pontypridd Board of Guardians, which for Poor-law purposes has charge of a population of 204,000 persons, has for several years declined to provide an adequate staff of trained nurses in the workhouse infirmary. At the end of last September Mr. Davies reported upon the necessity for taking immediate steps to remedy this deficiency, and although attempts have since been made to postpone indefinitely a settlement of the question this has been prevented by the persistence of the medical members of the board. There are on an average about 50 patients in the infirmary who are cared for by only one trained nurse. When the board decided recently to appoint a second nurse it was discovered that there were no quarters available for her accommodation. The medical officer then advised that the existing tramp wards should be removed and replaced by suitable nurses' quarters. The present accommodation for tramps could hardly be worse than it is, for every applicant has to go into the main entrance hall of the workhouse so that it is almost impossible to prevent contact with the inmates; indeed, upon three occasions in recent years smallpox has found its way from the tramp wards into the workhouse. The removal of the tramp wards from the precincts of the workhouse is therefore an urgent necessity, even if the site of the wards were not wanted, as it certainly is, for other and more suitable purposes.

Epileptic Colony for Wales.

In his recently issued annual report to the Local Government Board, Mr. F. T. Bircham, the general inspector for Wales and Monmouthshire, expresses the opinion that Wales would make a very good area for an epileptic colony and for an idiot school and he regrets that the county councils have not taken the matter up. The Glamorgan County Council had the subject under discussion a few years ago and issued a circular letter to the medical practitioners in the county with a view to ascertain how many non-pauper cases of idiocy and epilepsy there were in the county. It would appear that no effect was given to the result of this inquiry.

South Wales and Monmouthshire Branch of the British Medical Association.

At a meeting of the South Wales and Monmouthshire Branch of the British Medical Association held at Swansea on Oct. 25th, a committee was formed to take into consideration the readjustment of contract pay throughout the district. In connexion with certain articles which have recently appeared in the Cardiff daily newspapers the following motion was passed:

That in the opinion of this meeting it is highly inexpedient that signed articles discussing questions of professional treatment should appear in the lay press.

New Nurses' Home at Salisbury Infirmary.

The new nurses' home which has been erected at Salisbury as a local memorial of Her late Majesty's Diamond Jubilee was formally opened on Nov. 1st by the Marchioness of Lansdowne. The new building is in connexion with the Salisbury Infirmary and is named the "Victoria Home." The cost of erection and furnishing was £7800, the whole of which sum, with the exception of £200, has already been subscribed.

Devon and Exeter Hospital.

At the quarterly meeting of the governors of this institution held on Oct. 31st it was reported that for the corresponding quarter of 1900 there was a deficit of £1416, whereas at present there was a favourable balance of £730, in addition to which the sum of £3000 has been placed on deposit. This is the first time for many years that such a favourable state of affairs has occurred.

Nov. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Bubonic Plague in Glasgow.

SOME not unnatural alarm was caused in the city when on the morning of Nov. 1st it was officially announced that plague had reappeared in Glasgow. For some few days rumours had been current in reference to the suggestion that the outbreak in Liverpool had been traced to Glasgow, but on the last day of October an authoritative statement was issued contradicting this report. It now appears that on Oct. 19th a case of a suspicious nature was notified to the health authorities. A second case occurred on Oct. 20th and a third on Oct. 21st, each of the patients being a servant in the employ of the Central Station Hotel. All were removed to Belvidere Hospital and were kept in strict isolation, but it was not until a careful bacteriological investigation had been completed that they were definitely diagnosed as cases of plague. By this time a fourth servant in the

hotel had developed symptoms, and one of the original patients, a man, had died. On Nov. 1st a fifth case was recognised in the person of a barmaid at Airdrie Station whose duty it was to return to Glasgow every evening and who slept in the Central Station Hotel. All the patients have thus come from the same house. The hotel has been closed in order to facilitate a thorough examination, and some 200 employés remain in it under medical supervision. Some have been inoculated with anti-plague serum, and those whose work was more especially carried on in the basement have been removed to the corporation reception-house. To-day's report is that no further development has taken place, and that the patients in hospital are making favourable progress. The theory of the authorities is that the outbreak is probably to be traced to conveyance of the poison by means of rats. It is certain that rats have recently got into the basement of the hotel and that all the affected persons either worked or slept in the basement. A lively crusade against rats is, as a result, in active progress through the city. Dr. A. K. Chalmers has issued a memorandum on the subject, suggesting methods by which they may be exterminated or excluded from dwelling-houses, and these, as may be readily understood, are being energetically put into operation. Concerning the chance of the disease extending the authorities hold reassuring views. The strictly limited character of the outbreak, though a fortnight has now elapsed since the appearance of the first case, is of hopeful augury, and there is no small ground of comfort in the recollection of the success with which the much more threatening circumstances of last year were promptly controlled.

University of Glasgow.

A highly influential meeting in support of the movement for promoting the extension and better equipment of the University was held in Glasgow on Oct. 31st. The cordial feeling of mutual goodwill existing between "town and gown" was illustrated by the presence of the Lord Provost in the chair and by the numerous representative citizens and academic dons who occupied places on the platform. Letters expressing sympathy with the object of the meeting were read from Mr. A. J. Balfour, M.P., Mr. Joseph Chamberlain, M.P. (both former Lord Rectors of the University), Lord Balfour of Burleigh, and Sir Henry Craik, K.C.B. The speakers included the Earl of Elgin, Lord Reay, the Right Honourable James A. Campbell, M.P., the Solicitor-General for Scotland, Principal Story, and Professor J. G. McKendrick. Principal Story gave a general account of the objects and present position of the movement. He recalled the fact that the University had been able in recent years to provide new and highly efficient laboratory and museum accommodation for the departments of botany, engineering, pathology, and anatomy. In these respects the University is now well abreast of the claims of the present day, but in other directions much remains to be done, and it is hoped that a sum of £150,000 will be raised. Towards this total £60,000 have already been received. Principal Story expressed an eloquent appreciation of Mr. Carnegie's unparalleled benefaction, but insisted that the need for further financial assistance still remained if the Scottish universities were to continue to hold their own in the educational world, and on this point he received repeated support from the other speakers. A sketch of the proposed developments in connexion with the medical school was presented by Professor McKendrick. It is hoped to provide for the teaching of physics a new laboratory which may compare with the botanical institute recently erected at a cost of £18,000 and the new anatomical rooms which have cost £13,000. In chemistry further laboratory accommodation is required to meet the growing numbers of medical and science students, and it is proposed also to endow a chair of organic chemistry. The claims of physiology, materia medica, and public health are to be met by the erection of a new building which, with the necessary new equipment, will cost about £40,000. When this is accomplished there will be room in the present buildings for the expansion of other departments, a special surgical laboratory costing some £10,000 being now in course of erection. Professor McKendrick advocated the building of a new maternity hospital, the provision of teaching museums, and the development of fellowships for the prosecution of research. The meeting altogether was very enthusiastic and the University authorities are to be congratulated upon the skill with which they have managed to associate all interests in a common determination to maintain the well-founded reputation of their *alma mater*.—The half-yearly meeting of the General Council of the University was held on Oct. 30th. Sir John N. Cuthbertson and Mr. W. R. Copland were re-elected assessors on the University Court. The meeting was a very long one and in the end the very unusual course was adopted of adjourning the council until Nov. 6th. A considerable amount of time was occupied in the discussion of the proposed re-arrangement of the academic year and the decision of the council was in favour of the establishment of a summer session for the arts faculty. The council recorded its grateful appreciation of Mr. Carnegie's gift and its sympathy with the movement for securing the better equipment of the University. In memory of the late Professor Dickson a valuable collection of theological works has been presented to the University library, in the service of which the late professor was engaged for nearly 40 years. A portrait of the late Principal Caird has been added to the gallery of the Divinity Hall, having been presented for this purpose by Mrs. Caird.

Faculty of Physicians and Surgeons of Glasgow.

At the annual meeting of the Faculty for the election of office-bearers held on Nov. 4th, Dr. James Finlayson was re-elected President and Mr. John Burns visitor. Dr. James D. Maclaren retired from the office of treasurer, which he has held for more than a quarter of a century, and his place was filled by Dr. William L. Reid. For the vacant examinerships there were several contests, the new examiners being Mr. Thomas Gray, D.Sc., B.Sc. Lond., in Chemistry, Dr. A. K. Chalmers, medical officer of health, Dr. Hugh Galt, and Dr. R. M. Buchanan in various departments of Public Health. In Anatomy the out-going Dr. Thomas H. Bryce succeeded in securing his re-election.

Glasgow Ophthalmic Institution.

A course of post-graduate lectures on Diseases and Injuries of the Eye was inaugurated on Tuesday evening last under the presidency of Professor John Glaister. There was a good attendance, over 40 general practitioners being present. In addition to a presentation of clinical cases and a display of stereoscopic photographs, Dr. Ramsay gave a lantern demonstration on Conjunctivitis, special reference being made to the microbic origin of its various forms and their treatment.

Nov. 6th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Inaugural Address of the Royal College of Surgeons in Ireland.

THE President of the Royal College of Surgeons in Ireland, Dr. Thomas Myles, delivered the inaugural address to the students on Nov. 2nd in the anatomical theatre of the College. There was a large attendance of visitors and students, and the lecture proved of much interest. Dr. Myles has long made the position of the men who join the Army Medical Service a matter of study so that his opinion on the inducements held out by that service to young men carries much weight. He adopted the somewhat novel attitude nowadays of congratulating Mr. Brodrick, the Secretary of State for War and of praising him for his recent efforts in connexion with Army medical reform. Speaking for the College and for himself, he said that he was sure that he would win the sympathy of all when he said that they were sincerely thankful to Mr. Brodrick for the great effort which he had made to improve the conditions of service in the Royal Army Medical Department. He alluded to the three blemishes of the scheme which he had already pointed out in a letter to the *Times*, and suggested that they could be removed without interfering with the general efficacy of the whole. Dr. Myles was plainly of opinion that the Army Medical Service will soon offer a fair career to the young surgeons of Ireland. As to the Poor-law Medical Service in Ireland to which so many students aspire, Dr. Myles was very outspoken. "The whole Irish Poor-law Service is," he said, "one to be shunned, and I cannot conceive how self-respecting men can offer themselves for vacancies in such numbers as they do."

Royal Academy of Medicine in Ireland.

The annual general meeting of the Royal Academy of Medicine in Ireland was held at the Royal College of

Physicians of Ireland on Oct. 25th, when the report of the last session was adopted and the officers for the coming session were elected. It was announced to the meeting that invitations had been received to the first Egyptian Congress of Medicine to be held at Cairo in December, 1902, and to the Fourteenth International Congress to be held in Madrid in April, 1903. Dr. Lombe Atthill was elected President for the year 1901-1902. Sir Christopher Nixon as President of the Royal College of Physicians of Ireland and Dr. Thomas Myles as President of the Royal College of Surgeons in Ireland, will fill the positions of President of the Medical Section and President of the Surgical Section respectively.

Precautions against the Bubonic Plague in Dublin.

A joint meeting of the Port Sanitary Authority and the Public Health Committee was held on Nov. 4th, to consider what precautions should be taken in order to prevent the entry of the plague to Dublin. Mr. Edgar Flinn, medical inspector of the Local Government Board for Ireland, attended, and took part in the discussion. It was considered by Sir Charles Cameron, the port medical officer of health, that although the existence of the plague in Glasgow and Liverpool rendered possible its transmission to Dublin by ships coming from those cities the probability was a remote one. It was resolved, however, that a medical inspection of the vessels coming from those ports should be commenced forthwith, and that circulars dealing with the necessary precautions against plague, more especially as regards the destruction of rats, should be sent out. The Public Health Committee have the Dublin port hospital ship available if it should be required.

The Annual Dinner of the Cork Medical Association.

On Saturday last the members of the above association held their annual dinner at the Imperial Hotel. Dr. T. Atkins presided. The toast of "The Cork Medical School" was responded to by Professor Charles and Professor Hartog. The former, in the course of his speech, mentioned that a grave peril might be threatening the Cork College, as there were grounds for believing that Mr. Horace Plunkett, Vice-President of the Agricultural and Technical Department, was endeavouring to have the Cork and Galway Colleges converted into technical colleges to be utilised in connexion with his department. Professor Charles dwelt on the subject at length and was listened to with great attention. The next toast was "The Navy and Army," which was responded to by Colonel Macnamara, principal medical officer, and Staff-Surgeon J. Moore, H.M.S. *Black Prince.*

Proposed Nurses' Home at the Belfast Union Infirmary.

The question of a new nurses' home at the Union Infirmary, Belfast, has been referred back for further consideration. It will probably cost £11,000; and those who object to its going on at present do so on the ground that the extension of the infirmary will cost from £4000 to £5000, the erection of a central laundry £6000, the addition to the fever hospital £1000, and that the fever cases have fallen in numbers. Those in favour of the scheme say that the nurses have not proper accommodation and that owing to this several have been laid up with typhoid fever, and that it was a curious fact that the very people on the board of guardians, who objected to the new nurses' home on the ground that there was enough work on hand, were urging them to spend a sum of £13,500 on a new board-room (which the Local Government Board said had as much space as the House of Commons) and offices.

The Poor-law System in Ireland.

There are many people in Ireland who will sympathise strongly with the following resolution which has been passed by the Larne Board of Guardians:—

> That this board is of opinion that the Poor-law system is a very costly one, giving no adequate return for the money, time, and labour expended on it; that it tends to encourage and foster idleness, thriftlessness, drunkenness, and immorality, and provides no means for dealing effectively with the tramp nuisance, but tends to encourage and perpetuate it. We, therefore, call upon the county council, the Members of Parliament for the county, and the Irish Local Government Board to use their influence with, and if necessary, to bring pressure to bear on, the Government with a view to having such a measure of reform passed as will remedy the existing evils and bring it into line with the present condition and needs of the country.

A Poor-law conference is to be held in Belfast on Nov. 7th and 8th. The following subjects are to be discussed: The Treatment of Imbeciles and Epileptics; Vagrants and Able-bodied Paupers; Children Born out of Wedlock, the Liability of their Fathers for their Maintenance; Nursing in Infirmaries; and Boarding-out of Children.

The Nursing Question in Lurgan Workhouse.

The authorities of Lurgan Workhouse, being anxious to adapt themselves to the changes required by the Local Government Board so that their infirmary might be qualified for the training of probationer nurses whose professional status would be recognised by the central authority, have ascertained that the Local Government Board were ready to sanction the appointment of a resident medical officer (male or female) who, subject to the senior medical officer (Dr. J. S. Darling), would have control of the sick wards, the nurses, and the nursing arrangements. They would also sanction a staff of four charge nurses, four assistant nurses (qualified), and such probationer nurses as might be employed on the recommendation of the medical officer. This staff would do for the infirmary, a charge nurse and an assistant nurse being requisite for the fever hospital. If a resident medical officer is appointed and a training scheme submitted the Local Government Board have agreed to approve of the training of probationers. A special meeting to deal with the matter has been convened.

The late W. H. Caldwell, M.D. R.U.I., J.P.

It is with regret that I announce the death of Dr. W. H. Caldwell, coroner for Coleraine and district, which took place at his residence in that town on Oct. 25th after an illness of three months' duration from paralysis due to cerebral disease. Early in life Dr. Caldwell was a pharmaceutical chemist, but he subsequently studied medicine at Queen's College, Belfast, and graduated M.D. of the Royal University of Ireland in 1880. Practising in Coleraine he was in 1883 elected coroner for that district and he was a member of the board of guardians and a justice of the peace for county Londonderry. His death is greatly regretted by a numerous *clientèle* and he leaves a widow and three young children to deplore his death. He was buried in Coleraine Cemetery on Oct. 28th, the immense concourse of persons who were present testifying to his extreme popularity.

Nov. 6th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Treatment of Lupus by Potassium Permanganate.

AT the meeting of the Academy of Medicine held on Oct. 22nd M. Hallopeau read a paper dealing with some researches of Dr. Butte on the treatment of lupus by potassium permanganate. Dr. Butte uses compresses soaked in a 2 per cent. solution of permanganate, by which he states that he has made a number of cures. M. Hallopeau tried the method in 25 cases and came to the conclusion that ulcerated patches of lupus heal with great regularity after some weeks or months, according to their extent. On non-ulcerated patches the treatment, as a rule, is without effect. The permanganate acts with greater rapidity than any other method as long as it is used in cases which are too extensive to be amenable to photo-therapy. This latter method is the only one capable of producing a good effect in cases where there are no ulcerations or prominent tubercles, but where there are simply induration of the skin and deep-seated miliary nodules. M. Hallopeau referred in addition to a method of treatment promulgated by M. Kaczanowsky which consists in applying for a quarter of an hour a layer of potassium permanganate. A scab forms which falls off at the end of three or four days, leaving a clean wound which rapidly cicatrises. This treatment is successful in superficial cases, but has no effect on deep-seated tubercles.

Foundation of a Medical School at Hanoi.

M. Doumer, the Governor of Indo-China, has decided on the foundation of a school of local medicine at Hanoi to which is to be annexed a hospital. The object of this school is to rear up a race of native Tonkinese medical men who are to be trained under French practitioners, both military and civil. Two years ago General Galliéni started a like institution in Madagascar. The average French practitioner is not in love with these schemes, for he considers that they take away outlets for the relief of a profession which is overcrowded at home, especially in Paris. They should remember, however, that very few

practitioners ever dream of going to the colonies, and that nearly all the colonial civilian practitioners are retired military or naval surgeons who have sent in their papers in order to settle in the country. On the other hand, the Governor-General cannot be expected—merely out of consideration for the metropolitan practitioners who do not choose to go to the colonies—to deprive himself of so powerful a civilising agent (one, moreover, who will approximate to European civilisation) as the native medical man.

Infantile Mortality in France.

Infantile mortality in France still keeps at a high level. Although popular notions of hygiene are more wide-spread than they were, and although the mortality-rate is certainly sinking, yet the figure reaches the enormous total of 167 per 1000. Only too often the newly-born infant among the lower classes dies solely on account of the ignorance of hygienic conditions displayed by its parents. The infant may be nursed by its mother or bottle-fed, but only too soon it is given food quite unfitting for its years and nothing is more common in the out-patient rooms at hospitals than to see mothers bringing wasted babies who, they say with pride in answer to questions, are fed on "just what we have ourselves." The same thing occurs in country districts where with a view to strengthen the child they give it brandy or absinthe in its milk. These very mothers, however, when they are instructed by the physician at the hospital pay the greatest attention to what he says and often bring up their children admirably. Maternal ignorance is therefore what has to be combated and with this end in view an active propaganda has been set on foot. The Municipal Council of Paris, on the motion of Dr. Cazalis, has just decided that whenever the birth of a child is registered in any *mairie* there shall be sent to the mother a short paper containing directions as to the chief points in the feeding and bringing up of an infant. Professor Budin and Dr. Variot, members of the sub-committee on *crèches*, have been appointed to draw up the paper in question, and it is earnestly to be hoped that the movement may not be confined to Paris but may be extended to every *mairie* in France.

Lead-poisoning from the Use of a Pewter Mug.

At the meeting of the Hospitals Medical Society held on Oct. 25th M. Variot reported the case of a child who exhibited Complete Paralysis of the Lower Extremities and Paresis of the Upper Limbs but without any Sphincter Trouble. The little patient also had a very marked lead-line on the gums. The case was evidently one of lead-poisoning, and the only cause for which that could be ascertained was the use by the child of a mug made of pewter containing a large proportion (75 per cent.) of lead. All the symptoms which the child exhibited could be attributed to the ingestion of lead owing to small portions of the metal being dissolved by the liquids, more or less acid, which were drunk from the mug. The child was at the time of the meeting nearly well, although the extensor muscles were still rather weaker than the flexors. M. Variot drew the attention of the meeting to the fact that in certain children's hospitals mugs were still used made of pewter containing a very appreciable quantity of lead (12 per cent.) and that their constant use might easily be most harmful. M. Rendu remarked that he had seen a case of cerebral disease due to lead-poisoning in a man who was in the habit of drinking cider which had been kept in pewter.

Nov. 5th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Tumours of the Stomach from a Medical and Surgical Point of View.

THIS subject was discussed at length at the annual autumn meeting of Swiss medical men at Olten on Oct. 25th.—Dr. Huber of Zürich gave a *résumé* of 57 cases which he had given over into the surgeons' hands—for operation 34 cases of cancer and 23 cases of gastric ulcer or its consequences (benign tumours). In the 34 cases of carcinoma gastrostomy was performed nine times with one casualty and gastro-enterostomy in 25 cases (20 men and five women) with six deaths. The presence of the following symptoms—viz., motor insufficiency of the stomach (100 per cent.), absence of muriatic acid (76 per cent.), and presence of lactic acid (70 per cent.)—generally decides the diagnosis, which in each case was verified by the surgeon. The rare occurrence of vomiting was remarkable (only five cases). Half the patients were between the ages of 30 and 50 years and the ages of the other half ranged between 50 and 70 years. They had generally shown gastric symptoms for half a year or more prior to the operation. In 26 cases a tumour could be palpated; the other nine cases, however, proved to be rather more advanced than these, so that a very early diagnosis was often impossible. The 23 cases of ulcer and its consequences all had motor insufficiency of the stomach in a very severe degree and some patients were very emaciated. Dr. Huber recommended these cases for operation after regular treatment with lavage for six or eight weeks has not alleviated the symptoms, thus appealing to the surgeons, "Cure our patients!"—Professor Krönlein of Zürich, who had operated upon most of Dr. Huber's patients, spoke from a surgical point of view, and he thoroughly agreed with Dr. Huber's indications for operation. He had collected the reports of 744 consecutive cases operated upon by Rhydigier, Billroth, Czerny, Mikulicz, Kocher, Roux, and himself (156) in the last 20 years. The mortality when carcinoma was present was 39 per cent. where gastrotomy was performed and 30 per cent. where the palliative operation of gastro-enterostomy was performed, whereas in the case of benign tumours the mortality in 102 cases amounted to only 19·6 per cent. But it must be considered that with increasing experience the operative result was continually improving; his own operations showed a total mortality of only 25 per cent. for cancer and 15 per cent. for benign tumours. In a minority of cases a radical cure was obtained, but the majority of the patients generally succumbed after living for a year or two.—Professor Kocher of Bern wished the total of radical operations to increase and the numbers of the palliative operations to decrease. He was all the more of this opinion as patients on whom gastro-enterostomy had been performed often lived for several years in apparently good health. Whereas the mortality of all his cases was 29 per cent., the results were improving rapidly in latter years. Of the last 52 cases he only lost 15 per cent., of the last 22 cases only 5½ per cent.; these figures refer only to carcinoma. Out of 60 patients operated upon for ulcer and benign tumours he only had five deaths, and could therefore sincerely recommend the physician to trust such patients to the surgeon's knife. After-examination of the stomach proved that the muscular and chemical forces returned and the digestive powers became normal.

Zürich, Nov. 1st.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Disappearance of Plague at Naples.

No fresh cases of plague have been reported from Naples or its neighbourhood for a fortnight. All the patients having now recovered and the persons under observation having been set at liberty the issue of bulletins from Nisida has stopped. The disease has thus been stamped out in the remarkably short space of 14 days, reckoning from the notification of the first till the isolation of the last case. Whatever blame the authorities may have incurred in the first instance they cannot be reproached for lack of promptitude or energy in dealing with the outbreak once its true nature was recognised. The result is a veritable triumph for the science of modern sanitation and at the same time an immense material saving to the city, and especially to the commerce of Naples.

The Second Italian Congress of Pediatry.

Amongst the subjects discussed at the Pediatric Congress which has just concluded its labours at Florence was that of the respective merits of sterilised and of ordinary unboiled milk in the artificial feeding of infants. The general opinion, as summed up by Professor Mya, seemed to be that the milk should be sterilised, notwithstanding the difficulty of obtaining a really aseptic product and the generally admitted deterioration of its nutrient qualities during the process of sterilisation. Until we invent some practical method of taking the milk from the cow antiseptically and of preserving it in an aseptic condition—which would no doubt be the ideal plan—we should continue our present precautions and avoid the many risks attending the use of milk in its raw

state. Another of the questions dealt with by the Congress was the canteen system in elementary schools, in regard to which the following resolution was passed:—

Considering (1) that the intellectual benefit derived from school is smallest, and the physical damage done greatest, when the children attend in a fasting condition or insufficiently fed; (2) that the nourishment supplied at school age should be adapted not only to the organic *status quo* but also to the development of the body and to the repair of the losses ensuing from the often excessive mental work; and (3) that in infancy the future of the individual is decided, and that the most efficient means of preventing disease and of rendering the new generation robust lies in the possession of good health and especially of a healthy stomach; for these reasons the Congress recommends that the Government municipalities, public institutions, and private charities should organise the providing of refections for the children in elementary schools; and it is further of opinion that in order to render efficient this hygienic measure, so necessary to social welfare and education, the quality and quantity of the daily rations should be determined scientifically.

Report on the Plague at Naples.

The report of the commission appointed to inquire into the facts connected with the outbreak of plague at Naples has been published. The object of the inquiry was to ascertain with whom the responsibility rested for the importation of the disease and the delay in notifying it and if possible to discover in what way the infection was introduced into the city. The result fully confirms the impression which has long been prevalent—namely, that gross carelessness, if nothing worse, has marked the conduct of the sanitary service of Naples and especially of the port. In coming to a decision the commission had to consider separately the responsibility (1) of the medical man who first denounced the cases; (2) of the local administration at the Punto Franco; (3) of the medical men who attended the patients first attacked; and (4) of the maritime sanitary officials. To Dr. Sorge, who originally drew attention to the suspicious cases, no blame for delay can be attached, since his only duty at the Punto Franco was to attend to accidents among the dock-labourers. In regard to the local administration, it appears that owing to the buildings at that spot being devoted entirely to the storage of imported merchandise there was no sanitary supervision exercised either by the Government or by the municipality, but only a fiscal control for the levying of customs dues. There was therefore no sanitary officer whose special duty it was to attend to the workpeople there and any sick person among them had to seek medical advice elsewhere. As to the different medical men—general practitioners and hospital surgeons—who attended the earlier cases and diagnosed them variously as adenitis, typhoid fever, typhlitis, pneumonia, &c., no suspicion of the real character of the malady seems to have arisen in their minds; and therefore, although they are perhaps blameable for their failure in diagnosis, they can scarcely be held guilty of a breach of the law, a contravention of which presupposes a recognition, or at least a suspicion, of the true nature of the disease. With respect to the responsibility of the maritime sanitary officials, the inquiry resolved itself into an examination, in the first place, of the special cases to which the outbreak of plague has drawn attention, where suspected ships had obtained *libera pratica;* and, in the second place, of the working of the sanitary service of the port previously to the outbreak under normal conditions. The commissioners find that there is no proof of any of the ships having had a case of plague on board, but, on the other hand, they severely censure the authorities for the way in which the sanitary measures prescribed by law had been carried out. They comment upon the absence of the officials from their posts when their services were required, on the perfunctory character of the medical visits to the incoming ships, and on the absurdly inadequate nature of the measures for disinfection, which they characterise as a mere farce. It appears that the medical visit was confined to the crew and the steerage passengers, and consisted in a rapid and general review of them without any questions being asked which might elicit the existence of individual ailments. The disinfection of personal effects in cases where such diseases as typhoid fever, diphtheria, &c., existed was left to the sanitary police, who carried it out in a totally inadequate manner without any supervision from the medical officer, who meanwhile passed his time chatting with the ship's officers in the saloon, frequently joining them also at their mess. Under such conditions it is impossible to determine how, or by which ship, the infection was imported, but it was sufficiently clear that while, in the concluding words of the report, "the prophylactic measures sanctioned by the maritime sanitary law and other ordinances in force are amply sufficient, the irregular, negligent, and incomplete execution of these—in other words the failure of the maritime sanitary officials to conscientiously discharge their duty—may have been, and perhaps really was, the actual cause of the calamity which has befallen Naples." As a result of the investigation the medical officers concerned have been called upon to exculpate themselves and have meanwhile been suspended from their duties at the port. The punishment awaiting these delinquents will, no doubt, be well deserved, but it is to be feared that they are merely the scapegoats and that the causes of all this negligence and mismanagement lie deeper—namely, in the generally effete and corrupt administration of the public affairs of Naples, which has been only partially exposed by the startling disclosures contained in the recently published report of the Saredo Commission.

Intravenous Injections of Corrosive Sublimate in Foot-and-Mouth Disease.

In his inaugural address to the Eleventh Italian Medical Congress which began its sittings at Pisa on Oct. 27th Professor Baccelli occupied himself chiefly with his new method of treatment for foot-and-mouth disease in cattle. He related how, on his appointment some months ago to the Ministry of Agriculture, he had found that Italy was suffering from a severe visitation of epizootic aphtha, and the idea had occurred to him that intravenous injections of a parasiticide might have beneficial effects in this as in other diseases. He recalled how, 12 years ago, he had employed with astonishing results intravenous injections of hydrochlorate of quinine in pernicious malaria, and later, also with success, similar injections of carbolic acid for tetanus, and he determined to make a trial of corrosive sublimate in foot-and-mouth disease. Happening soon afterwards to be at Civita Vecchia and aware that there were cases in that neighbourhood he instructed the municipal veterinary surgeon, Dr. Croce, how to apply the method, advising for young animals doses of from two to four centigrammes (from one-third to two-thirds of a grain) in each injection, according to the case; for adult animals from four to six centigrammes (from two-thirds to one grain); and for bulls from six to eight centigrammes (from one to one and a quarter grains); the solution containing for every centigramme of sublimate 75 milligrammes of chloride of sodium. The number of diseased animals so injected was 52, and all were rapidly and completely cured. Shortly afterwards he sent Dr. Croce to Sardinia where the disease had affected 26 animals. All of these were treated similarly and cured in the same speedy and thorough way. In other parts of Italy identical results were obtained by another veterinary surgeon, Dr. Cosea. Veterinary surgeons in general were doubtful about the safety of mercurial preparations in cattle and were almost averse to it, but these experiments proved that this idea was merely a prejudice, the fact being that cattle were singularly tolerant of mercury, which, moreover, was peculiarly well adapted for the treatment of aphtha, passing as it did directly to the chief seat of the disease—namely, the mouth—where it could be demonstrated in the saliva after the lapse of only one minute. Inquiries made by Professor Baccelli in regard to other methods of cure practised in Italy and elsewhere for foot-and-mouth disease showed that his mode of treatment was the best, and he was convinced that it would be the means of effecting an enormous pecuniary saving to the country. At its final sitting on Oct. 31st the Congress resolved to make the subject of "Intravenous Therapeutics" the leading theme of its next meeting, which will be held at Rome.

Nov. 2nd.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

Medical Practice in New Zealand.

OPPORTUNITIES have during the recent Royal visit presented themselves by which I have been able to discover the opinions of several journalists and others associated with the *Ophir's* glorious visit to New Zealand in connexion with our general position "down under." It appears that three points in particular have struck those "from above"—our buildings, our municipal management, and our journalism. Now, the four careers for which the universities and other examining bodies at home can qualify a man are

those of the cleric, the medical man, the barrister, and the journalist. The Royal visitors, I imagine, saw but little of the first; happily (equipped as they were in the possession of Dr. Manby) had little need of the second; owing to general rejoicing no necessity for the third; and the fourth estate was the only quarter from which they could form an opinion as to the literary attainments of the *hoi polloi* for which it caters. It is nevertheless an undoubted fact that all these professions are at the present moment, without exception, overdone in New Zealand. The legal profession, perhaps, first and the medical a good second. As a matter of fact successful tradesfolk in this colony endeavour so to educate their sons that they may enter one of the above professions. Now, ever since the days of John Knox it has been possible for the child to obtain an excellent education in Scotland, and the boy who had the talent had barely to think about ways and means. The same holds good in this colony. The time is rapidly coming in New Zealand (as it has long ago come at home) when well-educated men, whose education has unfitted them for the real battle of life, can find no place "within the meaning of the Act." Many of these unfortunates would have been much happier if they had been left to the manual arts of their predecessors, and had not been (by too ambitious parents) beguiled by the gifts of a superior education to strive for positions beyond their reach. All the world over—and New Zealand is no exception—the tendency is to crowd into cities, and to seek gain from work which is not reproductive; to over-educate a colony must lead many of its units into heartburnings. Young medical men without family ties which bind them to the motherland and who meditate practising in some other clime, may have had their attention directed to the "Britain of the South"; to such the following particulars about New Zealand from a medical point of view may be of some interest. Many young medical men have arrived in this colony brimful of hope that a lucrative practice was readily obtainable. Let me again warn them, that, unless they go out with a sufficient stock of worldly goods to commence with, New Zealand is no longer the Elysium it once was. Competition for public appointments is remarkably keen, and "influence" is an important factor in obtaining them. As a rule higher fees are paid to general practitioners out here than in England, much higher as far as actual money is concerned; but, on the other hand, living, clothing, and the maintenance of house and servants—the last-named being very expensive luxuries—soon dispel the rosy hue which the fees may offer to those who are eking out an existence in Great Britain. The average fee paid to a general practitioner is 7*s.* 6*d.* per visit; midwifery fees range from three to five guineas or more, according to the status of the patient and to mileage; here, perhaps, the advantage ceases. Operative work is not as a rule generously responded to in the way of remuneration. The majority of the people are of the labouring or middle classes, who are struggling themselves to make both ends meet. These for the most part resort to the hospitals where skilled medical care and nursing can be obtained at a small weekly charge. In the larger hospitals the medical staff is honorary; in the smaller, where there is no competition, the medical officers receive a small salary. The better class of patients avail themselves of private hospitals which are becoming more and more numerous in the larger centres; some of these are simply nursing homes where people from country districts remote from medical aid can come to be confined, or to receive other medical assistance; others are practically run by operating surgeons for their own benefit, and here, to quote from Dr. Goodhart's recent admirable address in Medicine at the annual meeting of the British Medical Association, "people undergo serious operations for the purpose of stitching harmless mobilities—for it is only quite exceptional that it is otherwise—into their places." Here also "throats and noses suffer terribly from this lust of operation that has beset the public." The multiplication of these private hospitals has given a great impetus to operative surgery; there is a real danger that the best interests of the patient may be subordinated to the eagerness to devise an operative remedy. The majority of the thrifty members of the community belong to "clubs," and as there is no wage-limit many who joined a lodge during hard times but who have afterwards become affluent belong to them. Clubs are being more and more abused by well-to-do people. Every man finds his own level in the colonies much sooner—acting by himself and without influential aid—than he does in the old country. The men who succeed best are those with a good all-round knowledge of their profession and who have made some study of the "special departments." A man, especially in the smaller townships, has to rely upon himself in many trying emergencies, and never knows when he may be called upon to perform any operation. The cost of bringing a consultant from another town is nearly prohibitive to people with moderate incomes, and most incomes are moderate. I may again remind intending medical emigrants that there is a medical school in New Zealand where students are annually presented after examination with their diplomas. Most of these diplomates do not commence practice until they have gone home for further study; Edinburgh seems to have a great attraction for many of them, and Edinburgh graduates form a large and influential contingent of the general body of medical men who practise in the colony. These Otago University students are well grounded before they go home to complete their medical education, and they omit no opportunity of attaining practical knowledge; when they return to New Zealand to commence practice they not only do themselves great credit, but reflect the same on their *alma mater*. A general practitioner, particularly if he has passed his first youth, coming out from the old country to practise in New Zealand will find the competition of these young colonials, enjoying local popularity and prestige, a very formidable one. Youthfulness, from a professional point of view is no disadvantage, and a professional career terminates earlier in life than is the case in England. The native population (Maóris) with few exceptions are now greatly impoverished, notwithstanding that the Government has by wise and generous legislation sought to protect them from themselves and from land-grabbers. Work amongst the natives is not usually much coveted; they are very fickle, will only carry out such instructions as fall in with their own ideas, and have a foolish prejudice against paying a medical practitioner's bill. Recently the Government has paid considerable attention to matters pertaining to public health; the work is yet in its infancy, but at no distant date there will be a regularly organised public health service, and there may be openings for men who possess special qualifications for this work.

Birth- and Death-rates.

The birth-rate in the colony for the year 1899 was 25·12 per 1000 persons living. The rate is lower than for the preceding year and, indeed, since the year 1881 there has been a steady decline. Indeed, notwithstanding the fact that the number of marriages solemnised has increased of late years the birth-rate for last year was the lowest so far recorded in the statistics of the colony. New Zealand had in 1880 the highest birth-rate of all the Australasian colonies—viz., 40·18 per 1000—but now the case is reversed, for the "Britain of the South" is at the bottom of the list with only 25·12. New Zealand shows the lowest death-rate as compared with the other Australasian colonies and, indeed, in European countries, being equivalent to 10·24 in every 1000 persons living. Deaths from violence in 1899 formed a large item in the total mortality, for the proportion per 10,000 persons living was 7·23, the total number of deaths having been 542, of which number 71 persons committed suicide. On the census being taken this year (April, 1901) it was discovered that the total population of New Zealand (exclusive of natives) amounted to 772,455. The native population is roughly estimated at 42,500, thus showing an increase in the population in both races since the census of 1896. Now, the number of medical practitioners in a young colony is sure to be of a more or less fluctuating character, various attractions drawing them here and there. At the present time the New Zealand Branch of the British Medical Association has enrolled 270 members, while on the register of the Colony no less than 664 names are to be found. Irregular practitioners, including several Chinese "doctors," herbalists, and medical galvanists, play their part here as elsewhere in Australasia.

Sept. 28th.

UNIVERSITY OF CAMBRIDGE.—The University Lectureship in Medicine will be vacant at Christmas by the resignation of Dr. D. MacAlister.—The Examiners for Medical Degrees in the current academical year are—in Physics, Mr. Wilson, F.R.S., and Mr. Skinner; in Chemistry, Mr. Adie and Mr. Morrell; in Elementary Biology, Mr. Bateson, F.R.S., and Mr. Blackman; in Human Anatomy, Professor A. Macalister, F.R.S., and Professor Birmingham; in Physiology, Mr. Lloyd Tuckett and Mr. Waymouth Reid, F.R.S.; and in Pharmaceutical Chemistry, Mr. Ivatt and Mr. Purvis.—On Oct. 24th the following degrees were conferred: M.D., G. F. McCleary, Trinity Hall; M.B., J. A. Glover, St. John's.

Medical News.

NATIONAL DENTAL HOSPITAL.—The annual distribution of prizes at the school connected with this hospital, of which H.R.H. the Duke of Cornwall and York is President, took place on Oct. 24th. The following is a list of awards. Dental Anatomy: medal, Mr. W. H. Haskew; certificate, Mr. S. Wheeler. Dental Mechanics, Theoretical: medal, Mr. F. P. Hamilton; certificates, Mr. W. H. Haskew and Mr. A. Allshorn. Dental Mechanics, Practical: medal, Mr. W. H. Haskew; certificate, Mr. W. Mountain. Dental Metallurgy: medals, Mr. H. G. Elstob and Mr. W. H. Haskew; certificate, Mr. F. P. Hamilton. Dental Surgery: medal, Mr. F. P. Hamilton; certificates, Mr. W. H. Haskew and Mr. F. A. Howorth. Operative Dental Surgery: medal, Mr. F. P. Hamilton; certificates, Mr. H. G. Elstob and Mr. L. Mosely. Dental Histology: medal, Mr. W. H. Haskew. Ash Prize: Mr. F. P. Hamilton. Rymer Gold Medal: Mr. W. H. Haskew. The Dean, Mr. Sidney Spokes, in alluding to the satisfactory condition of the school, mentioned that Mr. Hugh Candy had been appointed lecturer on Dental Metallurgy and Mr. Kenneth Goadby lecturer on Dental Bacteriology. Dr. G. Vivian Poore, after distributing the medals and certificates, delivered a brief address, to which reference has been made in a leading article contained in THE LANCET of Nov. 2nd, p. 1206.

VACCINATION IN LEICESTER.—The annual report of the medical officer of health of the borough of Leicester, just issued, shows that during the year 1900 there was a material increase in the number of people vaccinated, the total being more than double that of the previous year and nearly four times that of 1898. The following statistics show the private and public vaccinations in the borough of Leicester for the past 16 years:—1885, 979 public and 863 private, total, 1842; 1886, 561 public and 561 private, total, 1122; 1887, 188 public and 286 private, total 474; 1888, 80 public and 234 private, total 314; 1889, 31 public and 141 private, total 172; 1890, 12 public and 119 private, total 131; 1891, 6 public and 86 private, total 92; 1892, 12 public and 121 private, total 133; 1893, 44 public and 205 private, total 249; 1894, 29 public and 104 private, total, 133; 1895, 12 public and 63 private, total, 75; 1896, 19 public and 67 private, total 86; 1897, 11 public and 70 private, total 81; 1898, 12 public and 80 private, total 92; 1899, 56 public and 100 private, total 156; 1900, 155 public and 188 private, total 343.

UNIVERSITY COLLEGE, BRISTOL.—The following prizes were awarded in the medical department on Oct. 25th. Summer session:—Pathology, prize, J. Crétin. Medical Jurisprudence, certificate, C. Corfield. Operative Surgery, prize, C. Corfield. Midwifery, prize, A. Short. Practical Medicine, Surgery, and Midwifery, certificates, W. Webb and A. Short. Practical Physiology, prize, W. H. J. Pinniger; certificates, W. Ring, R. Bodman, C. E. K. Herapath, F. Perry, W. Lennox, H. Goodden, R. Vaughan, and F. G. Bergen. Pharmacology, prize, S. Hayman; certificate, T. Pratt. Materia Medica, prizes, F. G. Bergin and W. Pinniger. Practical Chemistry, prizes, C. Plumley and W. King; certificates, R. Lecky, R. Vaughan, and G. H. Smith. Anatomy, prize, W. Pinniger; certificates, F. W. Perry, A. Thomas, and J. S. Avery. University Entrance Scholarship (£50), C. S. Rivington. Lady Haberfield Entrance Scholarship (£30) A. E. Iles; Martyn Memorial Pathological Scholarships of £10 each, A. R. Short and C. Corfield; Tibbits Memorial Prize (£9 9s.), P. W. White; Committee's gold medal for the student of the fifth year who has most distinguished himself, J. E. Sparks; Augustin Prichard Prize (£6 6s.), C. J. Taylor; Clarke Scholarship (£15), A. Short; Henry Marshall Prize (£12), A. Short; Sanders Scholarships, J. E. Sparks (£22) and C. Corfield (£11); Special Midwifery Certificates, W. Blatchford, J. Clayton, F. Rudge, and C. J. Taylor.

BEQUESTS AND DONATIONS TO HOSPITALS.—Mrs. Jane Lermitte, of Thatched House, Muswell-hill, daughter of the late Dr. James Corrie of Finchley and widow of Mr. Edwin Walker Lermitte, has bequeathed £300 to the North-West London Hospital to endow an Edwin Lermitte cot.—By his will of Dec. 16th, 1895, with codicils of May 5th, 1896, and Dec. 22nd, 1897, Mr. Matthew Whiting of Aucklands, No. 48, North-side, Wandsworth-common, whose estate has been valued at £153,804 8s. gross, including personalty of the net value of £140,870 18s. 7d., left the residue of his property (about £120,000) in trust in equal shares for St. Thomas's Hospital, St. George's Hospital, Guy's Hospital, King's College Hospital, the Westminster Hospital, the Middlesex Hospital, the London Hospital, the Royal Free Hospital, St. Mary's Hospital, the Great Northern Hospital, the Brompton Hospital for Consumption and Diseases of the Chest, and the New Hospital for Women, Euston-road.—By the will of Alderman Sir Robert Sexton, of the firm of Robert Sexton and Sons, Dublin, dated April 17th, 1901, £500 are left to the Dublin Royal Hospital; £200 each to the Hospital for Incurables and the Royal Victoria Eye and Ear Hospital; £100 each to the Children's Hospital in Harcourt-street, the Orthopædic Hospital in Brunswick-street, St. Patrick's Nurses' Home, and the Jervis-street Hospital.—St. Mary's Hospital has received a donation of 50 guineas from the Merchant Taylors' Company and a donation of £500 from Mrs. Vlasto, in memory of her husband, the late Mr. Alexander A. Vlasto.

GUY'S HOSPITAL CHILDREN'S HOME.—This institution has for its object the provision of a home in connexion with Guy's Hospital for the reception and maintenance of the infants of the women employed in the laundry, hostel, and elsewhere in the hospital, and of such other children as the authorities of the home may think fit to admit. The primary intention is to help young unmarried women with first babies, anxious to redeem themselves and ready to work steadily, that they may earn money for the support of their children. The home has been actively carrying on work since October, 1899. The mothers are required to contribute 5s. a week towards the board of their children, or this sum has to be guaranteed from an outside source, the balance required for the maintenance of the home being raised by annual subscriptions. In order that the full establishment of the home may be utilised, the treasurer appeals for additional subscriptions "in the strong belief that the appeal will be met by those who unite with the spirit of compassion an appreciation of its intelligent and practical exercise." Donations, gifts, or communications respecting the home should be addressed to Mrs. Wells, Friern Lodge, Westwood Park, Forest-hill, S.E. The report for the year 1900 states that 14 children had been admitted up to Sept. 30th, 1900, at which date eight were remaining in the home and three were awaiting admission.

MEDICAL TOWN COUNCILLORS.—At the recent municipal elections the following members of the medical profession were elected town councillors: Mr. Henry McQuade, M.D., B.Ch. Dub., at Bristol; Mr. Preston King., M.D., B.C. Cantab., at Bath; Mr. W. Paul Swain, F.R.C.S. Eng., at Plymouth; Mr. T. Stevenson Balfour, M.D., C.M. Edin., at Chard; Mr. Charles Edward Liesching, L.R.C.P. Lond., M.R.C.S. Eng., at Tiverton; and Mr. Maurice John Doidge, B.A. Cantab., M.D. Brux., M.R.C.S. Eng., at Glastonbury. In South Wales Mr. James Robinson, L.R.C.P., L.R.C.S. Irel., was returned at Cardiff, and Mr. Michael O'Sullivan, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., at Swansea.

MUNIFICENT GIFT.—The Executive Committee having charge of the arrangements for providing a consumption hospital for Worcestershire are carefully considering various sites and types of building which have been proposed and are inviting subscriptions. The following generous offer has been addressed to Mr. G. H. Fosbroke, county medical officer, by Mr. Thomas Corbett:—

Impney, Droitwich, Oct. 25th, 1901.

DEAR MR. FOSBROKE,—I have pleasure in informing you that I am now in a position to promise, on behalf of the estate of my late brother, Mr. John Corbett, a donation of £1000 to the building fund of the proposed county sanatorium for consumption for the county of Worcester. It is an institution my late brother was much interested in and which he was most anxious to promote, and if he had lived he would have been very glad to see successfully established. Feeling myself assured, as my brother did, of the good work which can be accomplished by means of such an institution, I take this opportunity of expressing my earnest hope that the scheme may be brought to a successful conclusion.—Believe me, yours faithfully, THOS. H. CORBETT.

DR. HENRY DUTCH has been returned by a majority of nearly 300 votes at the recent bye-election as councillor for the Grosvenor Ward of the city of Westminster, in the place of Colonel the Hon. Heneage Legge, M.P., resigned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDERSON, EDMUND L., M.B., Ch.B. Vict., L.S.A. Lond., has been appointed Honorary Assistant Surgeon to the Hospital for Cancer and Skin Diseases, Liverpool.

BOND, FRANCIS THOMAS, M.D. Lond., M.R.C.S., F.R.S. Edin., has been re-appointed Medical Officer of Health by the Thornbury (Gloucestershire) District Council.

BREWERTON, ELMORE, F.R.C.S. Eng., has been appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

BROWN, J. WALTER, M.B., B.Ch., R.U.I., has been appointed House Surgeon to the Royal Victoria Hospital, Bournemouth.

CUMMING, WILLIAM, M.D. Edin., has been appointed Health and Medical Officer at Cairns, Queensland.

EADES, A. J., L.R.C.P. & S.I., Assistant Medical Officer County Asylum, Prestwich, has been appointed Senior Assistant Medical Officer at the County Asylum, Winwick.

EVANS, C. W., M.B. Lond., has been re-appointed Medical Officer of Health for Bakewell.

FLETCHER, J. L., M.B., M.S. Edin., has been re-appointed Medical Officer of Health for the South Darley Urban District.

HADLEY, CLEMENT, M.R.C.S., L.R.C.P.Lond., has been appointed Certifying Surgeon under the Factory Acts for the Shilton District of Warwickshire.

HALL, J. BASIL, M.C. Cantab., &c., has been appointed Honorary Surgeon to the Bradford Royal Infirmary, vice W. L. Roberts, M.R.C.S., deceased.

HARDING, H. W. L., M.R.C.S., has been appointed Public Vaccinator in New Zealand.

HOWARD, VINCENT, M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Borough and Rural District of Buckingham.

HOGG, JOHN A., L.R.C.P., M.R.C.S., has been appointed Medical Officer of Health to Castle Donington Rural District Council.

JACKSON, D., M.D. Glasg., has been appointed Medical Officer of Health for the Urban District of Hexham.

LANGRAN, W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Axminster Rural District.

LLEWELLYN, J., M.R.C.S., L.S.A., has been appointed Medical Officer for the Sherburn District of the Scarborough Union.

MURRELL, CHRISTINE M., M.B., B.S. Lond., has been appointed Assistant House Physician to the Royal Free Hospital, Gray's Inn-road.

OGSTON, F., M.D. Aberd., has been appointed District Health Officer in New Zealand.

PARRY, T. W., M.B., B.S. Cantab., has been appointed Certifying Surgeon under the Factory Acts for the Youlgreave District of Derbyshire.

POLLEN, H., M.D. Dub., has been appointed Medical Practitioner under the "Workers' Compensation for Accidents' Act, No. 2" (Australia).

ROSS, MARION J., M.D. Glasg., has been appointed House Surgeon to the Morpeth Dispensary.

WARE, GEORGE STEPHEN, M.B., B.S. Durh., L.R.C.P., M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Fourth District of the Barnstaple Union, vice J. W. L. Ware, L.R.C.P., M.R.C.S., resigned.

WILSON, JAMES MITCHELL, M.D. Glasg., has been appointed County Medical Officer of Health for the East Riding of Yorkshire.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Junior Assistant Medical Officer. Salary £150 per annum, rising to £170.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL, Woodchurch-road, Birkenhead.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

BOROUGH OF SOUTHWARK.—Public Analyst. Salary £400 per annum, rising to £500.

BRACEBRIDGE ASYLUM, near Lincoln.—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

BRADFIELD UNION.—Medical Officer and Public Vaccinator. Salary £53, and fees amounting approximately to £35 per annum. Also Medical Officer for the Workhouse, Bradfield. Salary £60 per annum.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with apartments, rations, washing, &c.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with apartments, board, washing, and attendance.

COUNTY ASYLUM, Mickleover, Derby.—Senior Assistant Medical Officer. Salary £130, rising to £150 per annum, with apartments, board, washing, and attendance. Also Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.

COUNTY ASYLUM, Prestwich, Manchester.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, with board, apartments, and washing.

EDAY, ORKNEY.—Medical Officer. Salary £50 per annum, with other emoluments.

ESSEX COUNTY ASYLUM, Brentwood.—Fourth Assistant Medical Officer. Salary £150 per annum.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Fifth Assistant Medical Officer, unmarried. Salary £170, with board, lodging, and washing.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.

HOLBORN UNION INFIRMARY, Archway-road, N.—Assistant Medical Officer. Salary £100 per annum, rising to £140, with usual residential allowance.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant to the Bacteriologist and Lecturer on Bacteriology.

LONDON HOSPITAL, Whitechapel, E.—Aural Surgeon.

MANCHESTER EAR HOSPITAL, 23, Byrom-street.—Clinical Clerkship for a Senior Student for six months. Honorarium 10 guineas.

MONSALL FEVER HOSPITAL, Manchester.—First Medical Assistant. Salary £180 per annum, with board and lodging.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, increasing to £180.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Mount Vernon, Hampstead, N.W., and Fitzroy-square, W.—Assistant Physician.

ROYAL DENTAL HOSPITAL OF LONDON.—Lecturer on Dental Surgery and Pathology.

ROYAL DEVON AND EXETER HOSPITAL, Exeter.—Junior Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

ROYAL INFIRMARY, Sheffield.—Casualty Officer. Salary £100 per annum, with board, lodging, and washing.

ROYAL MATERNITY CHARITY OF LONDON.—Physician.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer, single. Salary £150 per annum, with apartments, board, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Resident Surgeon, as Junior for six months and then as Senior for the like period. Salary at rate of £80 and £120 per annum respectively, with board and residence.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, E.—Assistant Resident Medical Officer (unmarried) for six months. Salary £80 per annum, with board, residence, laundry, &c.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon. Salary £100 per annum, with board and residence.

WESTMINSTER GENERAL DISPENSARY.—Honorary Physician.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120 per annum, increasing to £150, with board apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice under the Factory Acts of vacancies for Certifying Surgeons at Fannett, in the county of Donegal; at Clackmannan, in the county of Clackmannan; and at Margate, in the county of Kent.

Births, Marriages, and Deaths.

BIRTHS.

ATKINSON.—On Oct. 26th, the wife of W. Alexander Atkinson, M.D. Durh., of a son.

BELFRAGE.—On the 30th ult., at 2, Montagu-place, W., the wife of S. Henning Belfrage, M.D., of a son.

BIDWELL.—On Oct. 30th, the wife of Leonard A. Bidwell, F.R.C.S., of a son.

TIPPETT.—On Oct. 22nd, the wife of Sydney Gordon Tippett, M.B. Lond., of a son.

MARRIAGES.

BRYANT—WATTS.—On Oct. 31st, at St. Paul's Church, Cambridge, by the Rev. Dr. Stokes, LL.D., vicar, assisted by the Rev. L. B. Laurence, M.A., Charles Hilary, third son of E. Ross Bryant of Newcastle-on-Tyne, to Theodora Harvard Watts, fifth daughter of the late Thomas F. Watts and Mrs. Watts of Bracondale, Cambridge.

CARSBERG—FASTNEDGE.—On the 31st Oct., at St. George's Church, Stamford, Alfred Ernest Carsberg, M.A., M.B. Cantab., youngest son of George N. Carsberg, Esq., of Hornsey-lane, N., to Mabelle Ruth, youngest daughter of Richard B. Fastnedge, Esq.

GORDON-WILSON—RISCH.—On Nov. 2nd, at S. John's, Blackheath, by the Rev. Thomas Turner, vicar of S. Saviour's, Fitzroy-square, Alexander Gordon-Wilson, M.D. Lond., F.R.C.S. Eng., of Lyell House, Folkestone, to Louisa Mary Friedericke Risch.

SAVILL—BLACKADDER.—At St. Mary Magdalene's Church, Dundee, on the 2nd inst., Thomas D. Savill, M.D. Lond., to Agnes F. Blackadder, M.A. St. And., M.D. Glasg., by the Rev. Francis Burdon, rector of St. Mary Magdalene's.

DEATH.

SMITH.—On Oct. 29th, Henry Spencer Smith, F.R.C.S., in his 89th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

WARDS IN CHANCERY.

IT occurs at times to medical practitioners desirous of supplementing their income by undertaking the charge of children and young persons in delicate health that the Court of Chancery, in the exercise of its jurisdiction over its wards, may be glad of their services, and that the court should have a fairly constant supply of young persons to be thus provided with desirable and suitable homes. A recent inquiry from a correspondent illustrates what we mean. He writes: "Could you give me the information of how and to whom to apply for the charge of a ward in Chancery? If you would do so I should be greatly obliged." Perhaps the best way to answer such an inquiry is to explain the position of the Chancery Division of the High Court of Justice in the matter of those young persons in whose welfare the Lord Chancellor is popularly supposed to interest himself personally. The Court of Chancery, as it is convenient to call it, will always undertake the superintendence and protection of the early years of those who possess money, if it is applied to with that object—for example, where money in which the infant is interested is paid into court under the Trustee Relief Act. A very small amount is sufficient to interest the court in the matter, and a parent desirous to obtain the aid of the court to prevent an imprudent marriage finds it convenient to do so by the settlement of a comparatively small sum of money, perhaps not more than £100, and complying with the necessary formalities, which sum the court will feel it its duty to shield from the possible future inroads of an undesirable bride or bridegroom. As a rule, however, wards of the court to whom such inquiries as the above might be held to refer are young persons entitled to property which may be large or small, but who have come to be wards of the court owing to some difficulty existing as to their rights, or some question having been raised as to the proper person to be appointed as their guardians. In any case someone has been interested in their career at some time and in consequence of that interest the court has been consulted, and if any question has arisen as to guardianship the court has settled it by appointing some person whom it has considered to be the proper person for the post. This person, whoever he or she may be, whether father or mother or a person in no way related, performs the duties of guardianship under the court's supervision; the ward is not to be taken out of the court's jurisdiction without its leave; an account is to be given of the methods adopted to secure his or her proper education, and the consent of the court must be procured to his or her marriage, or the wrath of the court will be incurred. The mere fact, however, of the possession of property, it will be seen, implies the existence of persons interested in the child's welfare and if there are infants in the court's charge as wards in Chancery in whom no one outside the court and its officials is interested they can hardly exist in sufficient numbers for any official, as our correspondent would seem to imply, having anything in the nature of a constantly recurring function to exercise in the choice of homes for children in weak health. The care of those whose deficiency is mental depends upon the establishment of the mental unsoundness which afflicts them, but the jurisdiction exercised by the Lord Chancellor and the Lords Justices of Appeal in matters which concern lunatics has nothing to do with that which is exercised by the Court of Chancery over infants whose property has been intrusted to the care of the court. In conclusion, we may say that the ward in Chancery is an infant whose guardian is subjected to supervision by the court owing to his possessing property in which the court is interested, but that we are not aware of any officially recognised method by which the temporary care of the infant's body may be obtained.

MARSHALL HALL'S METHOD OF RESUSCITATION.

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent "P. T.," in THE LANCET of Nov. 2nd, p. 1240, he can find the account of Dr. Marshall Hall's method for the resuscitation of the apparently drowned in "Osborn's First Ambulance Lectures," published by Lewis, Gower-street. It is as follows. The patient is laid upon his face with one arm flexed and placed as a cushion for his forehead to rest upon and his chest supported by folded articles of clothing. The opposite arm is then taken by the wrist by one hand while the other hand rests on the patient's shoulder-blade of the same side, the body is then turned on its side and a little beyond and the arm which is being held by the wrist is elevated above the head; by this means inspiration is effected. The body is then turned back on to the face whilst pressure is made with the hand resting on the thorax sufficiently to drive the air out again and expiration is simulated. Two assistants, one taking the head and the other the lower extremities, follow the operator in his movements when turning the body backwards and forwards.

I am, Sirs, yours faithfully,

Nov. 4th, 1901. E. T.

THE OBLIGING OPTICIAN.

A CORRESPONDENT has sent us a cutting from the *North Devon Herald* of Oct. 24th, by which we are informed that Mr. A. E. Dark, F.S.M.C., B.O.A., Spectacle Specialist (Diploma by examination from the Worshipful Company of Spectacle Makers, London, 1899), lives at 14, High-street, Barnstaple. Mr. Dark says that all errors of refraction are correctly diagnosed and that difficult cases and those considered impossible to suit with glasses are specially sought for. He keeps a special eye-testing room and neither time or (*sic*) trouble is spared in testing, with the result that glasses prescribed by him are in almost every case faultless for clearness and comfort. We have not the least idea what F.S.M.C. may mean or B.O.A. either, for the only boa with which we have any acquaintance is an animal whose chief characteristics are entrapping unwary prey and then swallowing it. Mr. Dark had better confine himself to his proper trade of grinding lenses to a curvature the figures for which may be supplied to him by a properly qualified medical man.

GRATITUDE.

A CORRESPONDENT has sent us the following letter:—

To Dr. A——,

Sir,—I., J. R., do wish hereby to express to you and your Assistant, Dr. D., my deep felt gratitude for, and appreciation of, the kindne , patience, and skill displayed by you in the treatment of my wife in the crisis through which she passed in the early months of this year which will ever be remembered by us. Likewise the sympathy and treatment in our other trials is remembered by us with respect and deepest gratitude. Wishing you may always have like success in your undertakings,

I remain, your humble servant,

J. R.

Dr. A—— is rightly gratified at such a testimonial. These are the little things that sweeten the medical life, while they remind the medical man that his calling is not a pure trade, inasmuch as the intimate service which he may be called upon to render to his patients can never be paid completely in money.

AN ENVIABLE OPPORTUNITY

To the Editors of THE LANCET.

SIRS,—I note that you allude in a leading article in THE LANCET of Nov. 2nd, p. 1207, to the enviable opportunities that dentists seem able to enjoy for fishing—among other pursuits. I was speaking a day or two ago to a friend of mine, a dentist and a fisherman, upon the subject, when he handed me the inclosed record of his catches from Oct. 1st to 26th inclusive. He seemed to consider that the reproach of wasting his time could not well be brought against him,

I am, Sirs, yours faithfully,

Nov. 5th, 1901. ARTIFEX.

[INCLOSURE.]

Oct. 1st, 1901	... 19 lb., 6½ lb.	Oct. 14th, 1901	... 17½ lb., 16½ lb., 15½ lb., 8 lb.
,, 3rd, ,,	... 3½ lb.	,, 15th, ,,	... 16 lb., 11½ lb.
,, 4th, ,,	... 5 lb.	,, 17th, ,,	... 8 lb., 7 lb., 7½ lb.
,, 5th, ,,	... 25 lb., 20 lb., 11 lb., 10 lb.	,, 19th, ,,	... 16 lb.
,, 8th, ,,	... 14½ lb.	,, 21st, ,,	... 18½ lb.
,, 9th, ,,	... 18½ lb., 14½ lb., 6 lb.	,, 22nd, ,,	... 22 lb.
,, 10th, ,,	... 7 lb., 6½ lb.	,, 23rd, ,,	... 14½ lb.
,, 11th, ,,	... 28 lb., 22½ lb., 20½ lb., 19 lb., 18 lb., 8 lb.	,, 24th, ,,	... 18½ lb., 8 lb.
		,, 25th, ,,	... 19 lb., 18½ lb., 14 lb.
,, 12th, ,,	... 21 lb., 16½ lb., 7 lb.	,, 26th, ,,	... 16 lb.

42 fish, weighing 599½ lb., killed on the Mayen water, averaging about 14¼ lb., *all* on the fly.

ADVERTISEMENT *IN EXCELSIS*.

IN the issue of *M.A.P.* of Nov. 2nd Mr. T. P. O'Connor mentions that he prescribed "the dry meal" as a specific for dyspepsia. Without stopping to do more than say that it is foolish for a layman or even for a medical man to "prescribe" any one remedy for a condition which depends upon so many things as that of dyspepsia, we presume that Mr. O'Connor means that eating without drinking relieves some forms of dyspepsia. However, Mr. O'Connor has been called indignantly to task by "Dr. Yorke-Davies, the eminent specialist on food and digestion." Now, Mr. Yorke-Davies, who has the qualifications of M.R.C.S., L.R.C.P. Lond., L.S.A., and L.M. Dub., writes to Mr. T. P. O'Connor and points out quite rightly the danger of prescribing in the lay press. So far so good; but when he proceeds, as he does, to say in so many words how skilled he himself is in the treatment of dyspepsia we must protest. Take the following sentences: "I diet thousands of people." "I suppose there is not a day that I do not get patients ....." "I have dieted many thousands for this purpose, and in no single case has one ever come to me for this, where they have not been able to say that they benefited by the process." Mr. Yorke-Davies also remarks: "I think I know a little about literature and writing, as I have been a writing-man all my life." We are glad to know this at

first hand for from the following sentence we should never have thought it. "If a person wants to lose weight advise them to go to the expert who can do it without harm." Lest there should be any doubt as to who the expert is Mr. Yorke-Davies kindly adds: "Many patients of Schweninger, whose system of reducing weight is the dry one, come to me." Why patients should be benefited by seeing Mr. Yorke-Davies lose weight we cannot understand. After the thousands of patients who have seen him he must be in the condition of Augustus, of whom it may be remembered the poet (a medical man) remarked—

"Look at him now the fourth day's come,
He scarcely weighs a sugar-plum."

We may add that we have received two letters of protest against this unblushing advertisement, one from a medical man and one from a layman.

ISAAC GORDONS AND THE MONEY-LENDING ACT (1900).

WE have received a little pamphlet from Mr. Thomas Farrow, whose book, "The Money Lender Unmasked," led to the passing of the Money Lenders Act, 1900. True, Mr. Farrow contends that the Act is perfectly useless, and he gives quotations from the *Law Times* and from *Truth* to support his contention. Mr. Farrow mentions a number of reforms which he considers should be useful, and, to our minds, the Act certainly ought to be amended upon Mr. Farrow's lines. Young medical men frequently fall victims to these sharks' delusive advertisements, so that we, as medical journalists, have a personal, if possibly selfish, interest in seeing money-lenders checked.

THE METHODS OF A PUBLIC VACCINATOR.

ON two previous occasions we commented (see THE LANCET, August 17th, p. 502, and Sept. 14th, p. 768) upon the methods of a certain public vaccinator. In both instances we withheld the gentleman's name. As, however, the circular continued to be sent out we wrote to him calling his attention to what we had said. We received a reply which we do not think is satisfactory. However, he mentions that he courts publicity; therefore we publish his name and address—Dr. Theo. Parker, Beryl, South Norwood.

A CASE OF MALINGERING.

To the Editors of THE LANCET.

SIRS,—A man, giving the name of Charles Turner, aged 49 years, came in here one wet morning saying that whilst at work on the Great Northern Railway at Royston repairing telephone wires a telegraph pole had fallen across the front of his abdomen, knocking him down and rendering him unconscious for two hours. The accident occurred at 8 A.M. He said he vomited on recovering consciousness and again on reaching the infirmary at 11 A.M. On examining him the abdomen was tense and rigid; there was no tympanites. He complained of severe pain and tenderness. Urine was passed two hours previously; some was drawn off with a catheter and was normal in every respect. An old laparotomy scar was observed on the abdomen. The skin was cold and moist and his temperature was 97° F. I was told by the matron that she remembered having seen a similar case at Norwood Cottage Hospital some years ago which proved to be a fraud and had the patient carefully watched. The surgeon under whose care he was came to the conclusion after four days' observation that there was nothing the matter with the man and he was eventually turned out of the infirmary. He has a trick of adulterating the urine with tobacco-juice, and by slow degrees makes himself obnoxious to the nurses. The man has, I believe, been at Royston Cottage Hospital, from which he departed at 5 A.M. one morning. He then came on here. He sometimes gives the alias of Charles Stevens, but his tale is usually the same. He gives a false address in London, travels by himself, and he said he worked for the National Telephone Company, which is untrue. I inclose a photograph of the abdomen; he objected to have his face taken.

I am, Sirs, yours faithfully,
E. DONALDSON-SIM.

General Infirmary, Hertford, Oct. 29th, 1901.

*** The photograph which our correspondent incloses shows an apparently very tense distended abdomen, the distension being specially marked along the line of the transverse colon. Mr. Donaldson-Sim, however, expressly says that there was no tympanites. Probably if the nature of the case had not been detected the man would have gone on to produce a phantom tumour. —ED. L.

"TEGMINE."

"TEGMINE" is the name given to a sticky and aseptic preparation of oxide of zinc which is intended to be spread over the spot where the scarifications in vaccination have been made. Before the smear of tegmine has hardened a circular textile pad may be placed over it. Tegmine dries very rapidly and its application with the pad obviates the use of other protective appliances. The method is cleanly and neat, with no unsightliness at all. Scars look very healthy usually under this simple but effective dressing. Tegmine is sterilised by steam and drawn into sterilised zinc tubes by air-pressure. The small outfit submitted to our notice was sent to us by Messrs. Rebman, Limited, 129, Shaftesbury-avenue, London, W.C. It is stated that tegmine has been described at the Imperial Institute for the Cultivation of Calf Vaccine in Vienna as "the most suitable and reliable protection in vaccination."

M.D. (Bournemouth).—There is no tariff that will exactly meet such inquiries. The practitioner will best judge for himself, having generally special knowledge of the means and circumstances of his patient and of the value of his own time. Three guineas and five guineas would appear reasonable fees for the services rendered in the respective cases. But our correspondent must use his own judgment

Country Practitioner.—We are not quite certain of the price and date of the later editions of the best books but will reply in the course of the week.

Streatham.—The law is perfectly clear on the matter and a solicitor's advice is all that our correspondent requires.

ERRATUM.—We regret that through an error the name of Messrs Martell and Co., the well-known producers of brandy in the Cognac district, was given in our analytical notice of Pedigree Port last week. Messrs. Martell and Co. are in no way connected with the Pedigree Port Company, the proper address of which is Gt. St. Helen's, London, E.C.

ERRATUM.—In THE LANCET of Oct. 26th, p. 1153, col. 1, line 17, "Major E. J. Lloyd to be Surgeon-Lieutenant" should read Surgeon-Lieutenant-*Colonel*.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.) West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (12th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

WEDNESDAY (13th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

THURSDAY (14th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

FRIDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.)

SATURDAY (16th).—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (11th).—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Clinical Evening. Mr. A. Pearce Gould: Two Cases of Actinomycosis.—Mr. Monier-Williams: Case of Ulcerative Colitis treated by Colotomy, Paralysis of Eleventh and Twelfth Cranial Nerves.—Mr. T. H. Kellock: Case of Bilateral Disease of the Ankle-joints in a Child.—Mr. C. Mansell-Moullin: Case of Spina Bifida Occulta.—Mr. A. Carless: Case of Amputation of Entire Upper Extremity for Chondro-sarcoma, with specimen.—Mr. J. L. Thomas, C.B.: (1) Photograph of a Large Occipital Meningocele cured by Operation; (2) A New Reel for Multiple Ligatures.

TUESDAY (12th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Mr. C. B. Keetley: Ulceration of the Œsophagus and Stomach due to Swallowing Strong Hydrochloric Acid, Lessons of Treatment deduced from Three Cases.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Papers:—Mr. T. E. Wallis: The Structure of Capsicum Minimum.—Mr. W. H. Lenton: The Ash of Capsicum Fruits.

WEDNESDAY (13th).—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Discussion on Small-pox and Vaccination in which Dr. W. A. Bond will take part. Paper: Dr. Major Greenwood: The Present Position of Small-pox and Vaccination. Dr. MacCombie: The Differential Diagnosis of Small-pox, with remarks on Prodromal Rashes and Vaccination.

THURSDAY (14th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. B. Browne: Twenty-five Years' Experience of Urinary Surgery (Harveian Lecture.)

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. H. Macnaughton-Jones, Mr. R. O'Callaghan, and others. Paper: Dr. H. Snow; Prophylaxis in Gynæcology.

FRIDAY (15th).—SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (11, Chandos-street, Cavendish-square, W.).—5.30 P.M. Cases and Specimens will be shown by Mr. A. H. Tubby, Dr. D. Walsh, Mr. S. Stephenson, Dr. E. Cautley, and Mr. W. G. Nash. Papers: Dr. E. Cautley: Observations on the Etiology and Morbid Anatomy of Tuberculous Meningitis.—Mr. G. Pernet: A Family Epidemic of Impetigo Contagiosa Bullosa.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (11th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. F. Payne: Clinique. (Skin.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. H. Ll. Williams: Diagnosis of Pain in the Teeth.

TUESDAY (12th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Sir W. H. Broadbent: Clinique. (Medical.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Ormerod: Cases in Hospital.

ROYAL UNITED SERVICE INSTITUTION (Whitehall).—3 P.M. Dr. L. Canney: Typhoid, the Destroyer of Armies, and its Abolition (followed by a Discussion).

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

WEDNESDAY (13th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. W. Roughton: Clinique. (Surgical.)

LONDON THROAT HOSPITAL (204, Great Portland-street, W.).—5 P.M. Dr. F. Potter: Selected Cases. (Post-Graduate Course.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Maguire: Aortic Regurgitation (with cases).

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—3 P.M. Dr. W. Wingrave: The Examination of the Ear.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

THURSDAY (14th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Kellock: Abscess in connexion with Spinal Caries and its Treatment.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. Gibbs: Demonstration of Surgical Cases. (Post-Graduate Course.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: Unreduced Dislocations.

FRIDAY (15th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. H. Tilley: Clinique (Throat).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Risien Russell: Paraplegia.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Dunn: Ocular Symptoms.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and *not* to THE LANCET Offices.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 7th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 1	30·28	S.E.	...	88	54	44	43	47	Cloudy
,, 2	30·36	S.E.	...	78	54	42	42	44	Hazy
,, 3	30·38	E.	...	67	50	35	45	45	Hazy
,, 4	30·33	S.E.	...	53	42	35	35	36	Foggy
,, 5	30·42	E.	...	42	42	34	35	35	Foggy
,, 6	30·32	S.W.	...	51	41	33	34	34	Foggy
,, 7	30·23	W.	...	48	44	34	38	38	Foggy

During the week marked copies of the following newspapers have been received:—*Bristol Mercury, Midland Evening News, Yorkshire Post, Morning Post, Morning Advertiser, Daily Express, Lincolnshire Chronicle, Times of India, Eastern Province Herald (Port Elizabeth, S. Africa), Reading Mercury, Windsor and Eton Express, Leicester Daily Post, Glasgow Daily Record, Dunoon Herald, Dublin Daily Express, Shields Gazette, Cambrian Leader, Hexam Courant, Newcastle Leader, Bournemouth Guardian, Manchester City News, Bristol Press, Sheffield Independent, Irish Times, Oldham Standard, Supplement, Dundee Advertiser, Literary Digest, Surrey Advertiser, Preston Herald, Nottinghamshire Free Press, Uxbridge Advertiser, Bury Press, &c.*

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